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May 13, 1963

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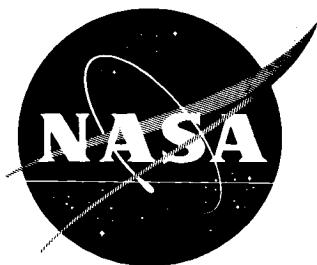
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SATURN SA-4 POSTFLIGHT TRAJECTORY (U)

By

John P. Sheats 13 May 1963 regular

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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MTP-AERO-63-33

SATURN SA-4 POSTFLIGHT TRAJECTORY (U)

By John P. Sheats

(U) ABSTRACT

This report presents the postflight trajectory for the Saturn SA-4 test flight. Position and velocity components are given in earth-fixed, space-fixed, and geographical coordinate systems. Acceleration components are given in the earth-fixed and space-fixed systems. Several other flight mechanical parameters are also given. Trajectory data are given in 0.5 sec intervals during the entire flight until loss of telemetry (398.05 sec) and at significant event times.

This report also shows a comparison between nominal and actual trajectories.

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John P. Sheats

**FLIGHT EVALUATION BRANCH
AEROBALLISTICS DIVISION**

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(U) LIST OF SYMBOLS

Symbol	Definition
LATITUDE	Geodetic Latitude
EARTH VEL	Earth-fixed Geometric Vehicle Velocity Vector
VEL ELEV (ϵ)	Elevation of the Earth-fixed Velocity Vector Referenced to the Local Horizontal
VEL AZ (α)	Azimuth of the Earth-fixed Velocity Vector Measured Clockwise from North
SPACE VEL	Space-fixed Geometric Vehicle Velocity Vector
IECO & OECO	Inboard and Outboard Engine Cutoff, Respectively

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SATURN SA-4 POSTFLIGHT TRAJECTORY (U)

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(U) SUMMARY

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The actual flight path of SA-4 was close to nominal. Due to higher accelerations and early cutoff, the altitude was higher and the range was slightly less than nominal throughout the flight. The loss of telemetry occurred at 398.05 sec at an altitude of 26.95 km.

At OECO, the actual altitude was 1.55 km higher, the range was 0.21 km shorter, and the velocity was 12.7 m/s greater than nominal.

The first engineering test of the Mistram tracking system and the radar altimeter for the Saturn vehicle was successful.

Position and velocity components are given in earth-fixed, space-fixed, and geographic coordinate systems. Acceleration components are given in the earth-fixed and space-fixed systems. Several flight mechanical parameters are also given throughout flight. This data is given in 0.5 sec intervals, and at all significant event times, in tabular form. *Uncl.*

AUTHOR

1.0 (U) INTRODUCTION

This report presents the postflight trajectory of Saturn vehicle SA-4 which was flight tested on March 28, 1963 from Cape Canaveral, Florida.

The sources of data available, their utilization, and an analysis of these data are presented. A comparison of the actual and nominal trajectory parameters is also given. The trajectory from the time of first motion until loss of telemetry signal is given in tabular form in Tables IV through VIII. All significant events are shown in these tables.

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All times listed in the tables are referenced to Range Zero, 1511:55 EST. For these trajectory calculations, first motion time was assumed to occur 0.40 seconds after Range Zero.

Acknowledgement is given to the Data Reduction Branch of the Computation Division for the preparation of the tabulated data in this report.

2.0 (U) COORDINATE SYSTEMS AND TRAJECTORY PARAMETERS

The translational motion of the vehicle's center of gravity is described in several coordinate systems. An initial displacement of 30.5 meters locates the center of gravity in the coordinate systems whose origin lies on the reference ellipsoid. Definitions of the coordinate systems are found in the Appendix.

Launch pad coordinates are defined with respect to the Clarke Ellipsoid of 1866 which was chosen to represent the earth and its gravitational field.

The geographical coordinates, based on the Clarke Ellipsoid of 1866, and gravity data for complex VLF 34 at Cape Canaveral are:

Geodetic Latitude: 28.52153° N

Longitude : 80.56136° W

Gravity : 9.79248 m/sec²

Elevation above reference ellipsoid:

Base of launch pedestal: 4.9 m

C.G. at first motion : 30.5 m

Launch Date: March 28, 1963

Launch Azimuth: 100° E of N

ST-90 Platform Azimuth: 100.023 E of N

Fin I-III Azimuth: 100.287 E of N

3.0 (U) TRAJECTORY ANALYSIS

3.1 Data Sources

The trajectory was established from first motion to the loss of telemetry signal. Loss of telemetry signal was initially established at 397.8 sec range time. A later comparison of Cape and GBI telemetry records indicates that signal was lost at 398.05 sec. However, the loss of telemetry signal given in Tables IV through VIII was chosen to be 397.8 sec range time.

The reduced tracking data (especially Azusa and UDOP), after 40 sec of flight, had smaller random errors than on any previous flight. The difference between the Azusa, Mistram, and UDOP tracking systems (corrected for their respective antenna locations) during the powered flight was 5 m or less.

The postflight trajectory was established from Fixed Camera data (0 - 15 sec), UDOP (15 - 95 sec), telemetered guidance with adjustments applied (95 - 132 sec), Azusa (132 - 150 sec), and a computed trajectory (150 - 397.8 sec) using Azusa data at 150 sec as initial conditions.

3.1.1 Antenna Location

Figure 1 shows the location of the antenna for various tracking systems. Figure 2 shows the vehicle center of gravity versus time, which is below the antenna locations at first motion. During the flight, the center of gravity moves along the longitudinal axis to a point above most of the tracking antennae at cutoff. The tracking data used in establishing the trajectory were translated to the vehicle center of gravity to provide a common reference point for all of the tracking systems.

3.1.2 Mistram

SA-4 was the first engineering test for the Mistram tracking system on the Saturn vehicle. Mistram measures position and velocity in real time by interferometer radar measurements and triangulation techniques. The Mistram's L-shaped base line has the central receiver at the intersection of the base lines and has two receivers at 3,048 m and two receivers at 30,480 m. The Mistram transmission frequency is 8216 mc or nearly 3000 mc higher than either Mark II Azusa or FPS-16 Radar. Tracking data from the Valkaria site were reduced in the following intervals.

35.75	-	125.25	sec
144.35	-	172.70	sec
173.70	-	182.20	sec
219.30	-	313.30	sec

The tracking data obtained were comparable to that from UDOP and Azusa. The deviations between Mistram and the other two systems were 5 m or less during powered flight.

3.1.3 Radar Altimeter

An engineering test flight of the radar altimeter also occurred on SA-4. The altimeter was designed for use with the Block II vehicles, when the vehicle will essentially be flying parallel to the earth's surface. No data were obtained from the altimeter until about 105 sec range time when the vehicle had reached a tilt angle of about 42.6 deg from the vertical. This data was not obtained from the main lobe of the antenna but from one of the minor lobes; consequently, the quality of the data was not the same as can be expected from Block II flights.

The output rate of the altimeter was 36 samples per sec with half-second markers given. These time markers are not referenced to range time, but the necessary correlation can be determined after the flight from telemetry. Useful output from the altimeter was obtained from about 105 - 125 sec range time.

Figure 3 shows the fluctuations in the output of the radar altimeter. The general trend in this figure has no significance and is only the result of some differencing calculations which were performed to emphasize the higher frequency oscillations. This figure shows that the output has 1) bursts of noise that occur about every second, 2) an altitude shift of about 30 m occurring at OECO, and 3) a random error of about ± 30 m, which is within the altimeter specifications. The cause of the burst of noise and the altitude shift at OECO have not yet been completely determined.

The output of the altimeter is compared with the actual trajectory in Figure 4. These differences have been smoothed and represent only the appropriate trends. The cable associated with the altimeter and the distance between the center of gravity and the altimeter antenna contribute about +15 to +20 m bias in the differences. The oscillations about the mean are caused by the noise in the altimeter output. The deviations (altimeter minus trajectory) vary from +40 to -20 m.

3.1.4 Carter Cay FPS-16 Radar

Soon after launch, it was reported that the radar operator at Carter Cay had picked up an object separate from SA-4 on skin track a few seconds after he had lost beacon track (about 189 sec). Several weeks later, after additional analysis, it was determined that the radar operator at Carter Cay had reported seeing multiple targets at about 400 sec range time. The function records and signal strength records

indicated a definite change in the radar signal between 375 - 400 sec range time. Also, the object or objects appeared to be "sailing" after 400 sec range time. It was expected that the vehicle should follow an uneventful flight path from retro rocket burnout until it started to re-enter the atmosphere. After this time, the normal accelerations were expected to build up and soon afterwards the vehicle was expected to break up. The vehicle actually lost structural integrity at 398.05 sec range time, which coincides closely with the time the radar operator at Carter Cay reported seeing multiple targets. It is concluded that the skin track obtained by the Carter Cay radar site was of the entire SA-4 vehicle from the time skin track was initiated until near 400 sec and that it was skin tracking some of the pieces of SA-4, exactly as expected.

An altitude versus time plot of Carter Cay track is shown in Figure 5. Also shown in this figure is the hypothetical altitude versus time trace for the vehicle if it had remained intact. The ground track is shown in relation to the launch site and the Carter Cay radar site in Figure 6.

3.2 Data Utilization

The external tracking data available for establishing the post-flight trajectory is shown in Table II and Figure 9. The trajectory, as published in this report (Tables IV through VIII), was established in the following manner (see Figure 8):

0.0 - 20 sec : "Close-in" and "Regular" Fixed Camera, and UDOP used in a least squares curve fit assuming that a fifth degree polynomial represents the flight path for that period of time. The resulting curve fit of the data is almost identical with the original input tracking data. This procedure was followed to establish smooth acceleration components during the launch phase of flight (see Ref. 2).

20.0 - 95.0 sec : UDOP data (positions, velocities, and accelerations) processed through a smoothing and differentiation program (see Ref. 3).

95.0 - 101.0 sec : UDOP position data processed through a smoothing and differentiation program, as used between 20 - 95 sec. The outputs of the guidance accelerometers were used in determining the velocity and acceleration components' profiles during this interval.

101.0 - 133.0 sec: Position data obtained from Azusa tracking, velocity and acceleration components' profiles obtained from guidance data in the same manner as between 95 - 101 sec.

133.0 - 150.0 sec: Azusa position, velocity and acceleration components were used.

150.0 - 397.8 sec: A computed trajectory using Azusa data as initial conditions at 150 sec.

Figures 10 through 12 depict the wind components, ambient pressure, and temperature profiles used in the calculation of the postflight trajectory.

First Motion

Pad measurements YL-1 and YL-2, the longitudinal acceleration (measurement number F5-13), and the altitude velocity from "Close-in" Fixed Camera are plotted versus time in Figure 7. The amplitude scale should be disregarded since only the transient motion is required in order to determine the time that first motion occurred. First motion was indicated at 0.3 sec by the YL-1 and YL-2 measurements, 0.4 sec by the longitudinal acceleration measurements (which have been filtered), and 0.39 sec for "Close-in" Fixed Camera. First motion time was determined to occur at 0.40 ± 50 ms after range zero time.

3.3 Error Analysis of Actual Trajectory

Good coverage for the launch phase was provided by the "Close-in" and "Regular" Fixed Camera. There was some degradation in quality of the Radar, Azusa, and Mistram during the first 10 - 40 sec because of surface environmental conditions and multipath effects. UDOP and Mistram data were adversely affected by retro rocket operation and the vehicle roll resulting from retro rocket misalignment. Figures 13 through 15 show external tracking comparisons through powered flight, while Figures 16 through 18 show the comparisons through free flight.

Random error in velocity and acceleration throughout powered flight is less than 0.1 m/s and 0.1 m/s^2 , respectively. Random error in position data is less than 3 m until about 150 sec. Random error in velocity components near 150 sec is less than 0.20 m/s .

Free flight (150 - 397.8 sec) uses Azusa initial conditions and compares with Azusa tracking between 242 - 278 sec. Position and velocity data during this interval have no random error. The bias error is reflected in the comparison at 276 sec.

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The Mistram tracking, although not used in the trajectory, compares closely to UDOP and Azusa at the time shown in the following table.

	100 sec			150 sec			276 sec		
	ΔX (m)	ΔY (m)	ΔZ (m)	ΔX (m)	ΔY (m)	ΔZ (m)	ΔX (m)	ΔY (m)	ΔZ (m)
Azusa	4	-5	-1	0	0	0	-18	12	0
UDOP	1	0	0	-7	15	9	-15	25	31
Mistram	5	0	-2	-3	3	-2	-30	40	11
Radar	1.16	-5	-26	8	-21	-38	10	-11	-13
	0.16	28	-20	16	-67	52	64	-32	156
	42.16	35	-72	46	21	-24	37	-25	-8
									4

4.0 (C) ACTUAL AND NOMINAL TRAJECTORY

4.1 (C) Powered Flight

Table IA lists the actual and nominal time of all significant events in sequential order. Actual and nominal altitude, range, and cross range (Z_e) are shown in Figure 19. The actual altitude was higher than nominal, but the range was shorter than nominal. The cross range (Z_e) was 0.40 km left of nominal at IECO (see Table III). About 0.126 km of this deviation was due to the difference in alignment of the platform and vehicle, and approximately 0.208 km was caused by the lateral winds. The remaining difference (0.066 km) was due to other small effects. The nominal trajectory is presented in Reference 1.

The longitudinal acceleration was slightly higher from first motion until IECO (see Figure 20).

The actual and nominal earth-fixed velocity is shown in Figure 21. Mach number and dynamic pressure are shown in Figure 22. These two parameters were calculated using measured meteorological data to an altitude of 31.5 km. Between 31.5 and 47.0 km altitude, the measured data was adjusted to the 1959 ARDC atmosphere, above which the 1959 ARDC was used (see Ref. 4). The actual peak dynamic pressure during the powered flight was slightly less (0.002 kg/cm^2) than nominal.

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A comparison of actual and nominal parameters at some significant event times is shown in Table IB. The outboard engine cutoff signal was initiated by LOX depletion, thus allowing the cutoff signal to occur slightly after thrust decay had begun (see Ref. 5). Altitude was 1.55 km higher, range was 0.21 km shorter, and the earth-fixed velocity was 12.7 m/s higher than nominal at OECO.

Actual and nominal longitudinal acceleration during the cutoff period is shown in the lower portion of Figure 20. A comparison of actual and nominal parameters at engine #5 cutoff, IECO, and OECO is given in Table III.

Thrust Decay

The velocity gain from the thrust decay of the various engines after cutoff signal is shown below.

Thrust Decay Area	Velocity Gain (m/sec)	
	Actual	Nominal
Engine No. 5 Cutoff	1.8	2.0
IECO	4.3	5.4
OECO	6.2	7.4

The velocity gain from outboard engine thrust decay has no significance for cutoff impulse from these engines since the cutoff signal occurred slightly after thrust decay had already begun.

4.2 (U) Retro Rockets

The retro rockets ignited and burned for about 2.14 sec and imparted a velocity loss of about 7.8 m/s to the entire SA-4 vehicle since no separation was scheduled. The longitudinal acceleration during retro rocket operation is shown in the lower portion of Figure 20. The maximum deceleration during this period was 3.8 m/s^2 .

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TABLE IA. (U) TIME OF EVENTS

	Range Time (sec)	
	Actual	Nominal
First Motion	0.40	0.40
Liftoff Signal	0.58	0.58
Tilt Program Begin	10.58	10.58
Mach 1	50.15	52.21
Maximum Dynamic Pressure	62.10	66.12
Engine 5 C.O. Signal	100.62	100.58
Begin Engine 5 Decay	100.75	100.64
End Engine 5 Decay	102.43	102.40
Tilt Program End	105.58	105.58
IECO	113.49	114.45
Begin IE Decay	113.68	114.45
Maximum Acceleration	113.68	114.45
IE Decay End	115.54	117.58
Begin OE Decay	121.10	121.67
OECO	121.12	121.67
Maximum Earth-fixed Velocity	121.50	122.11
End OE Decay	123.35	124.70
Retro Rocket Ignition	125.46	126.45
Retro Rocket Burnout	127.60	128.80
Apex	247.80	245.80
Loss of Telemetry Signal	398.05	

TABLE IB. (C) SIGNIFICANT EVENTS

Event	Parameter	Actual	Nominal	Act - Nom
First Motion	Range Time	0.40	0.40	0.0
	Longitudinal Acceleration (m/s^2)	13.33	13.02	+0.31
Mach 1	Range Time (sec)	50.15	52.21	-2.06
	Altitude (km)	6.55	6.79	-0.24
	Dynamic Pressure	62.10	66.12	-4.02
Maximum Dynamic Pressure	Range Time (sec)	0.371	0.373	-0.002
	Dynamic Pressure (kg/cm^2)	10.72	11.88	-1.16
	Altitude (km)	121.50	122.11	-0.61
Maximum Earth-fixed Velocity (Power Phase)	Range Time (sec)	1640.9	1628.0	+12.9
	Earth-fixed Velocity (m/s)	247.80	245.80	+2.00
	Range Time (sec)	129.66	125.16	+4.50
	Altitude (km)	182.83	181.04	+1.79
Apex	Range (km)	1137.3	1144.2	-6.9
	Earth-fixed Velocity (m/s)	398.05	*398.05	0.0
	Range Time (sec)	26.95	19.57	+7.38
	Altitude (km)	352.64	354.30	-1.66
Loss of Telemetry	Range (km)	-4.30	-12.53	+8.23
	Longitudinal Acceleration (m/s^2)	2.18	1.62	+0.56
	Elevation Angle from Pad (deg)			

* For Comparisons Only

TABLE II. (U) EXTERNAL DATA SOURCE

Data Source	Interval (sec)
Fixed Camera "Close-in"	0.056 - 7.969
Fixed Camera "Regular"	2.741 - 20.639
Theodolite	5.0 - 120.8
Azusa	16.50 - 192.50 241.7 - 278.25
UDOP	10.10 - 101.50 119.10 - 125.40 133.00 - 374.35
Mistram	35.75 - 125.25 144.35 - 172.70 173.70 - 182.20 219.30 - 313.30
FPS-16 Radar 1.16 (Cape)	Auto Beacon 0.0 - 69.0 Auto Skin 69.1 - 90.0 Auto Beacon 90.1 - 159.0 Auto Skin 159.1 - 217.0 Auto Beacon 217.1 - 279.0
FPS-16 Radar 0.16 (PAFB)	Auto Beacon 21.0 - 108.0 Auto Skin 121.2 - 134.0 Auto Beacon 134.1 - 167.0 Auto Skin 167.1 - 276.0
FPS-16 Radar 42.16 (Carter Cay)	Auto Beacon 91.0 - 189.0 Auto Skin 220.0 - 492.0

TABLE III. (C) CUTOFF CONDITIONS

	#5 C.O.			IECO			OECO		
Parameter	Actual	Nominal	A-N	Actual	Nominal	A-N	Actual	Nominal	A-N
Range Time (sec)	100.62	100.58**	+0.04	113.49	114.45	-0.96	121.12	121.67	-0.55
Range (sec)	20.11	19.69	+0.42	31.76	32.37	-0.61	40.16	40.37	-0.21
Altitude (km)	35.02	33.34	+1.68	47.95	47.05	+0.90	56.62	55.07	+1.55
Cross Range, z_e (km)	-0.11	0.22	-0.33	-0.07	0.33	-0.40	-0.03	0.40	-0.43
Earth-fixed Velocity (m/s)	1196.4	1158.1	+38.3	1531.5	1521.3	+10.2	1639.7	1627.0	+12.7
Longitudinal Acceleration (m/s ²)	35.54	34.66	+0.88	35.71	35.67	+0.04	19.56	21.04	-1.48
Velocity Vector Elevation (deg)	49.67	49.04	+0.63	46.40	45.56	+0.84	44.93	44.22	+0.71
Velocity Vector Azimuth (deg)	100.05	100.40	-0.35	100.22	100.50	-0.28	100.30	100.57	-0.27

** Adjusted to occur 100 sec after liftoff signal

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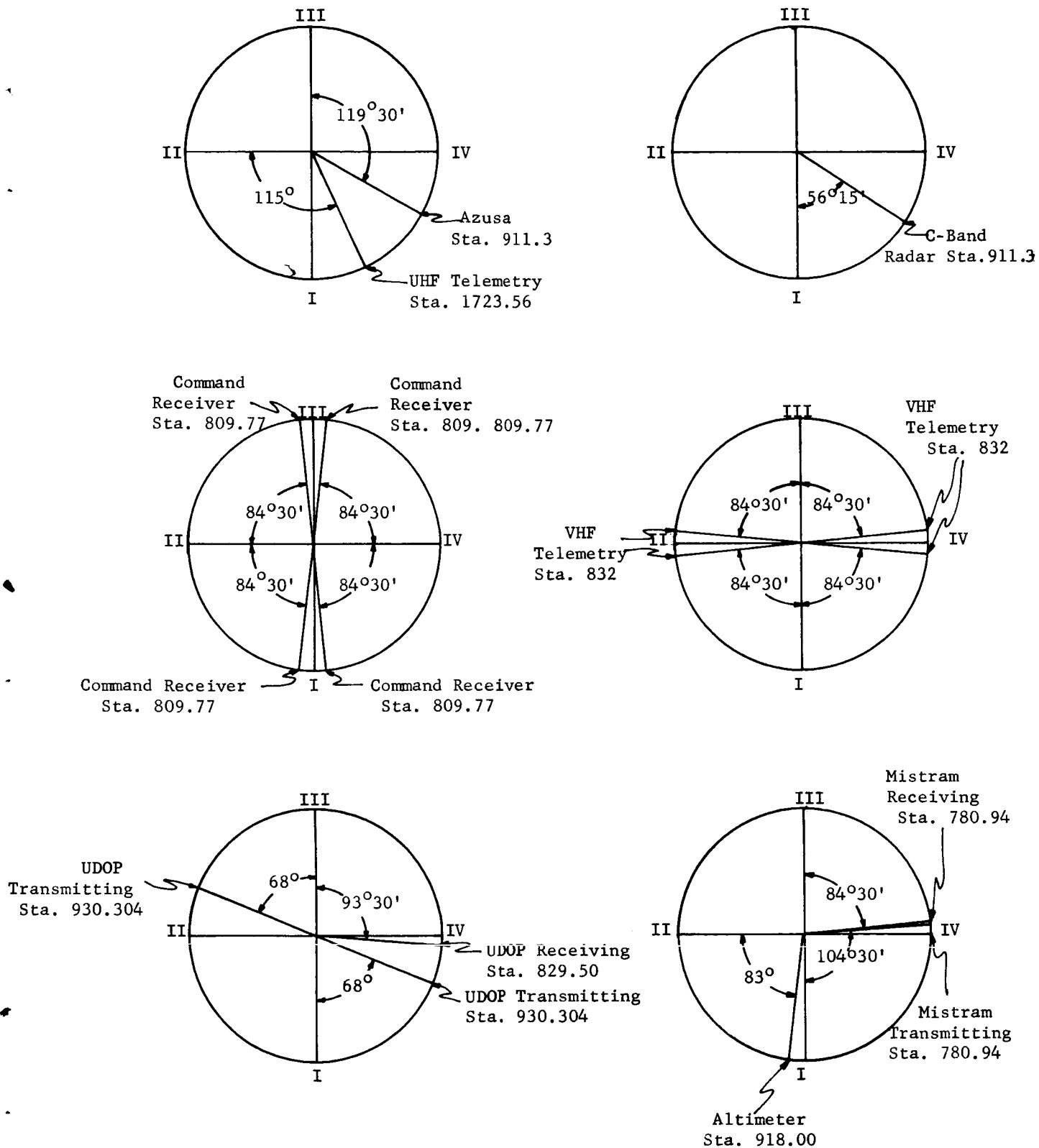


FIGURE 1 TRACKING ANTENNA LOCATION

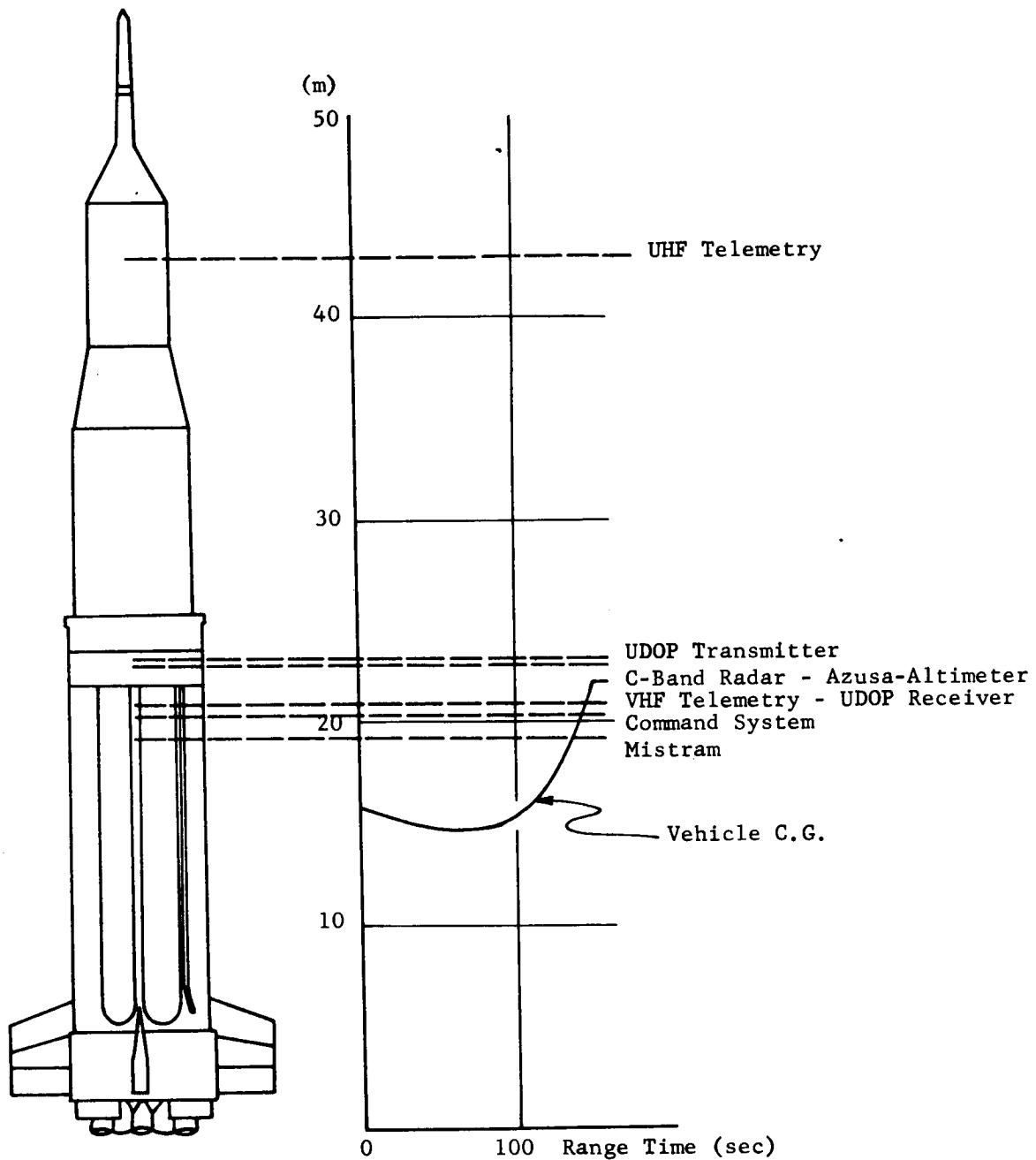


FIGURE 2 VEHICLE CENTER OF GRAVITY VS RANGE TIME

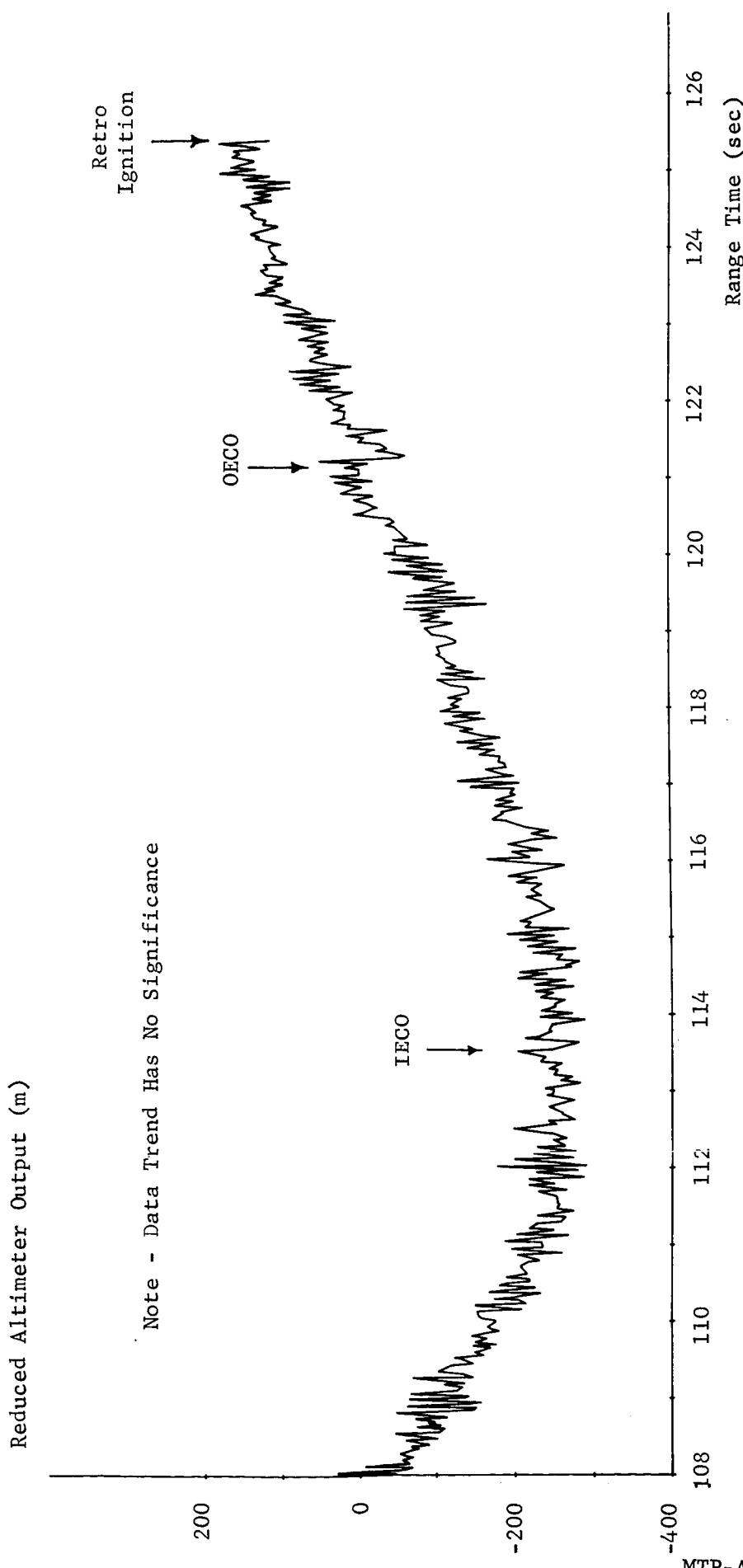


FIGURE 3 ALTIMETER OUTPUT

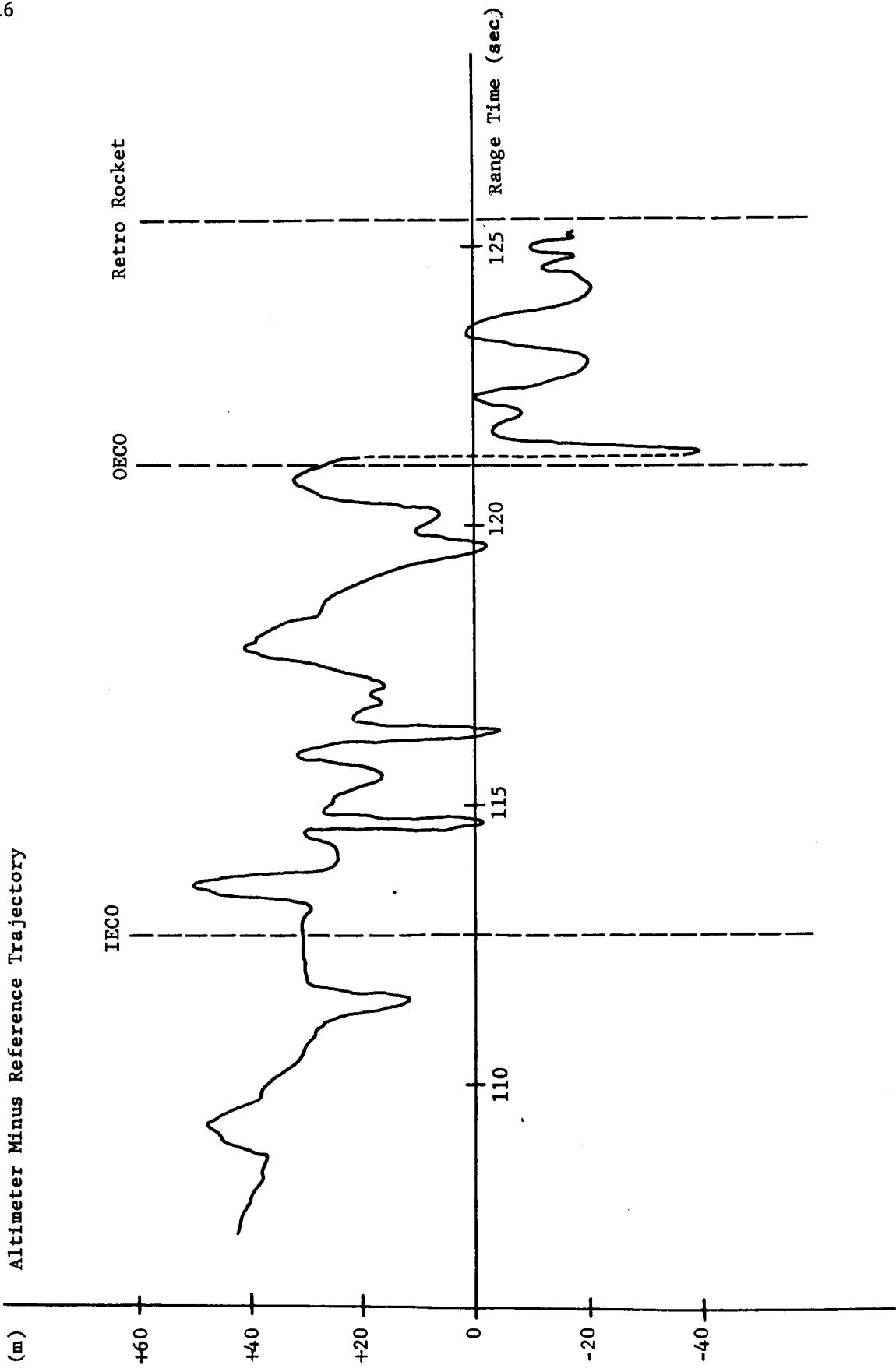


FIGURE 4 ALTITUDE COMPARISON

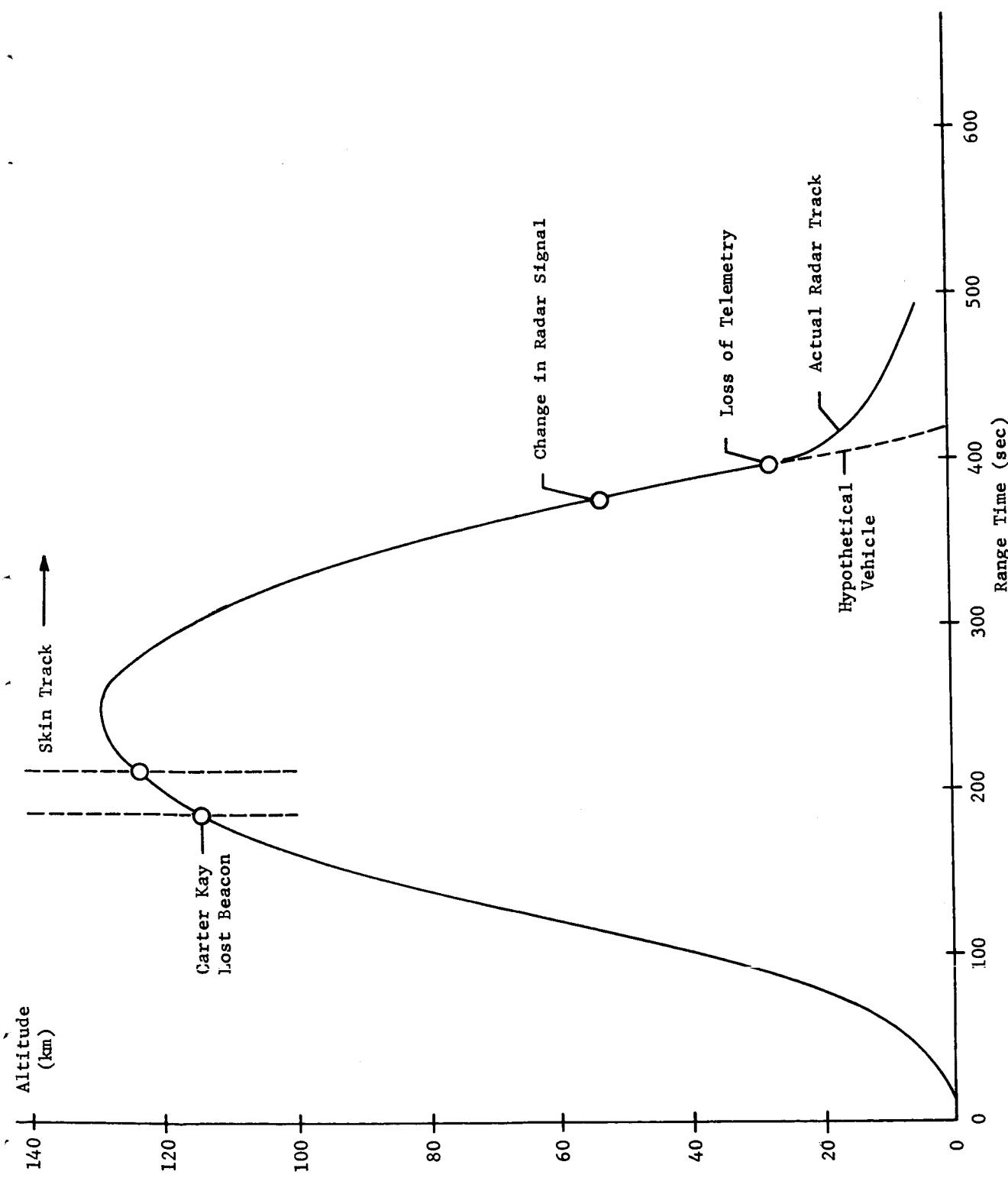


FIGURE 5 CARTER CAY RADAR TRACK

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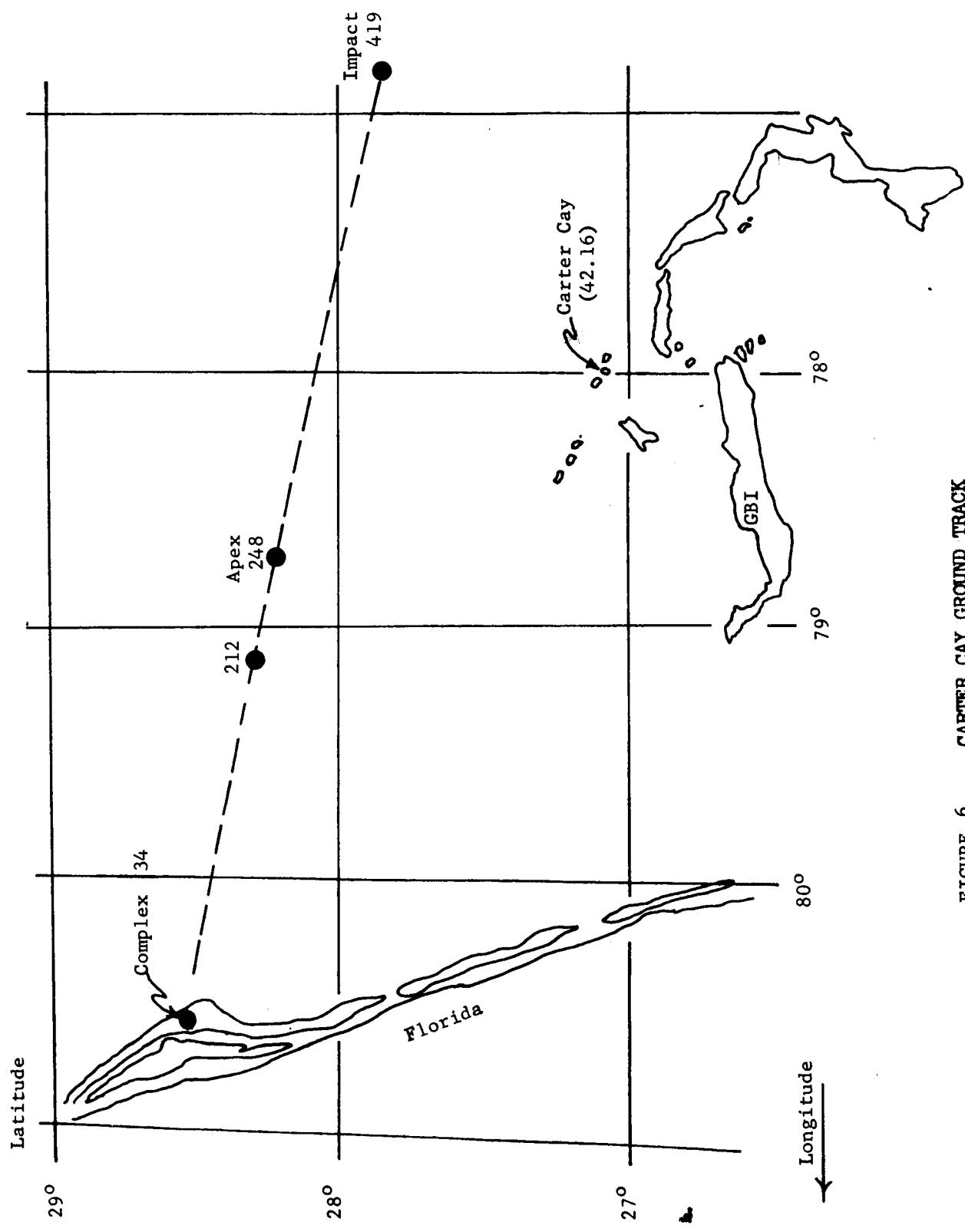


FIGURE 6 CARTER CAY GROUND TRACK

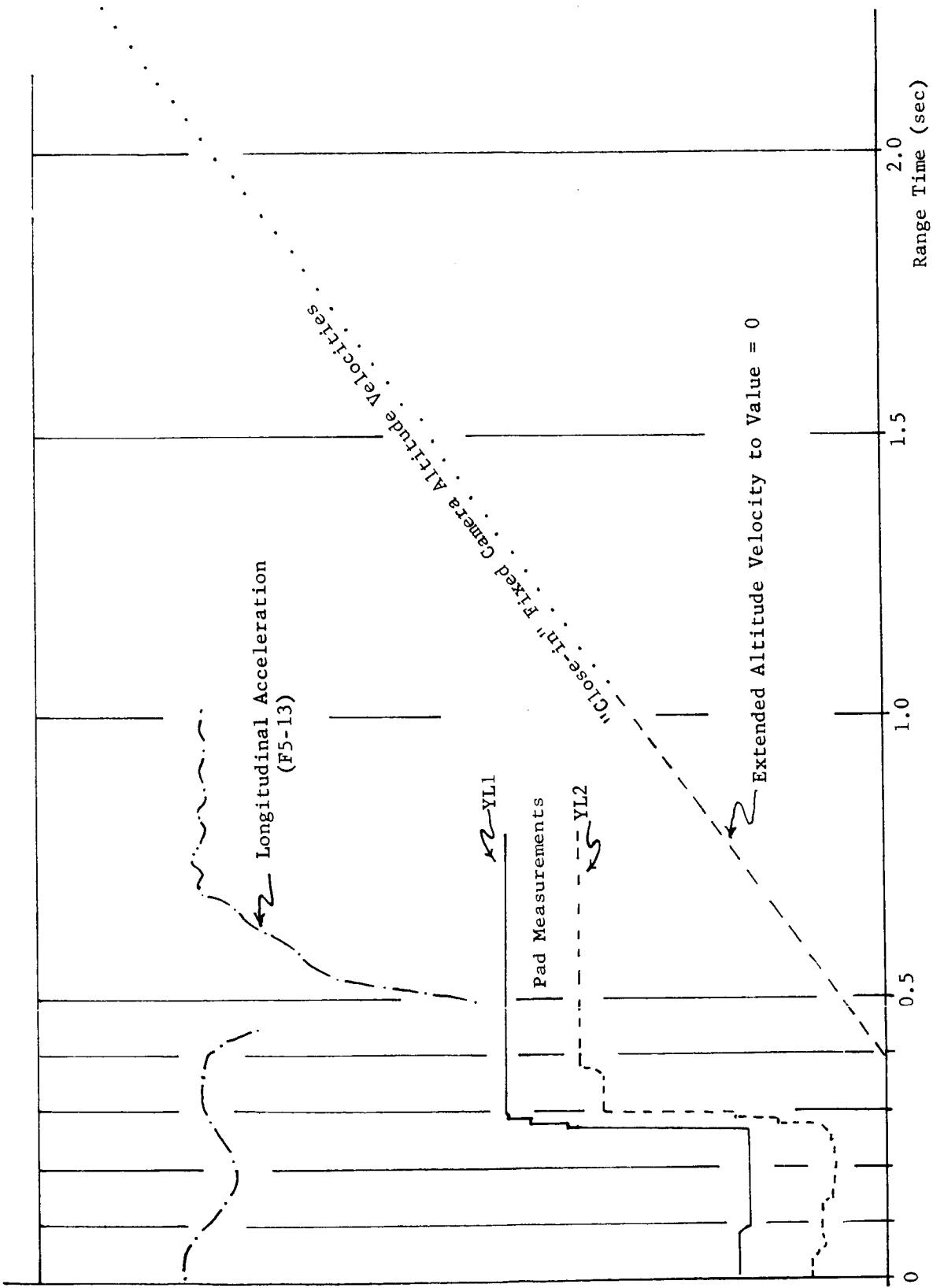


FIGURE 7 FIRST MOTION TIME

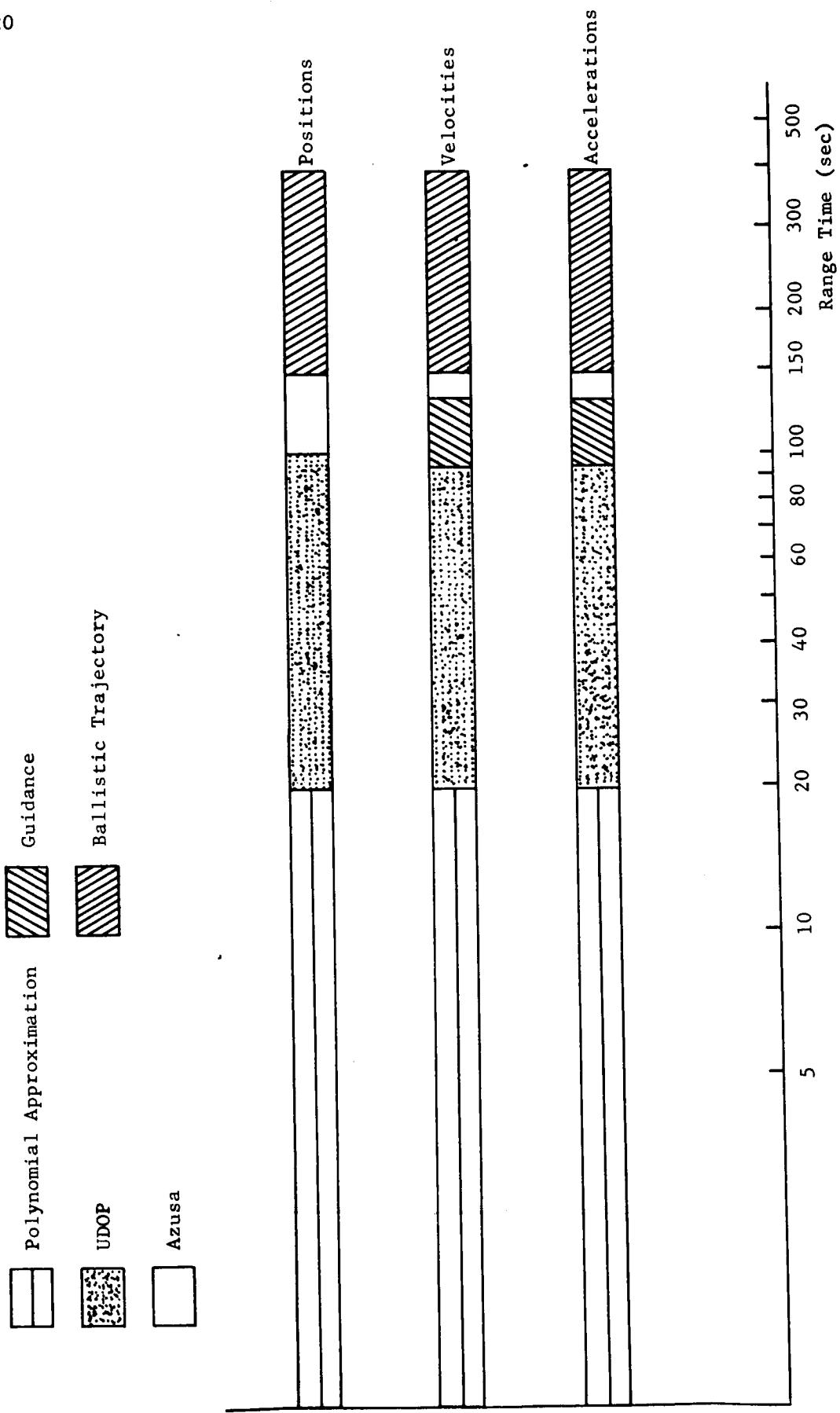


FIGURE 8 DATA UTILIZATION

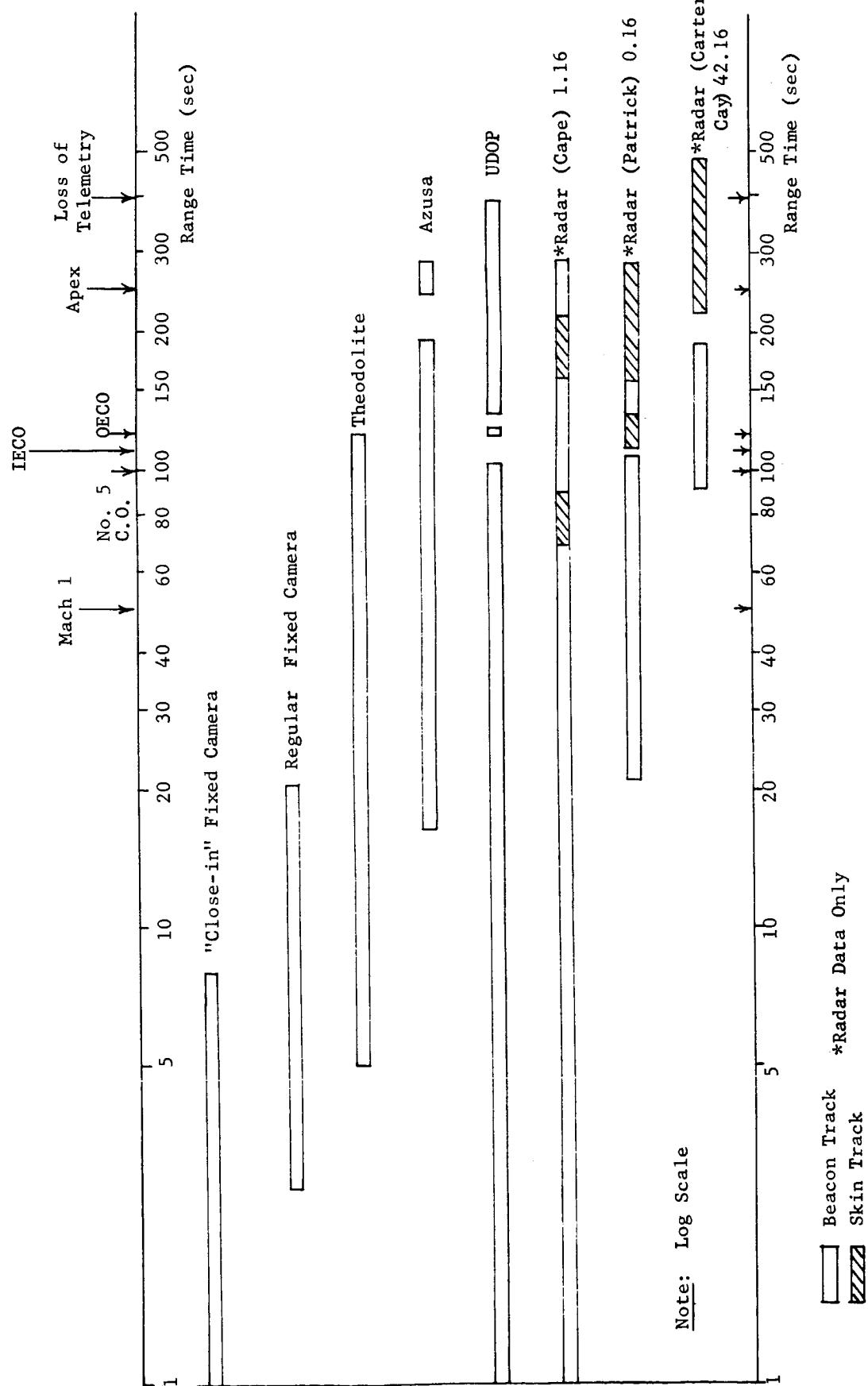


FIGURE 9 EXTERNAL TRACKING DATA

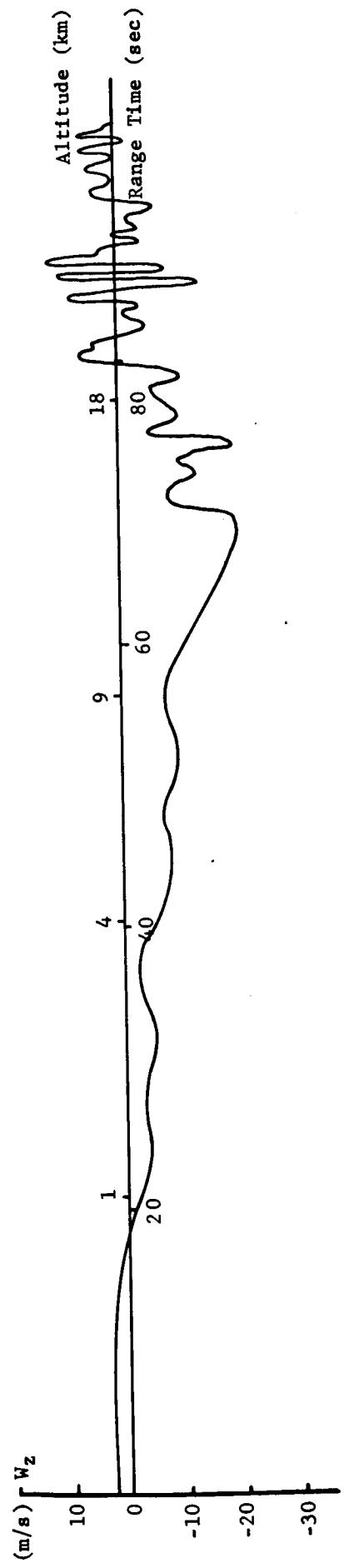
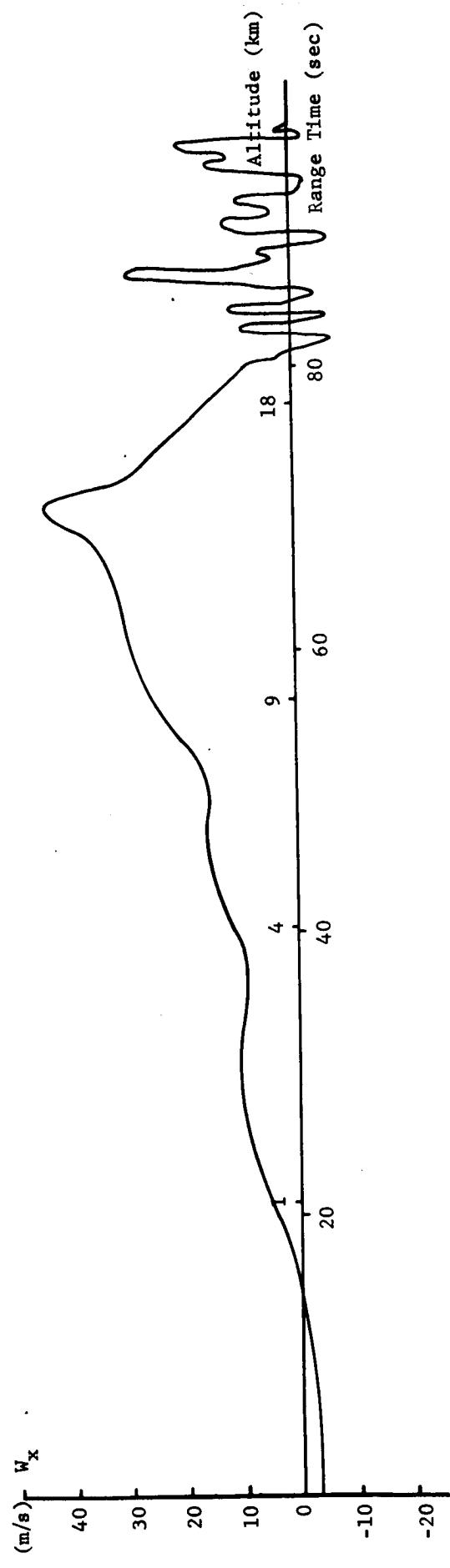


FIGURE 10 WIND COMPONENTS

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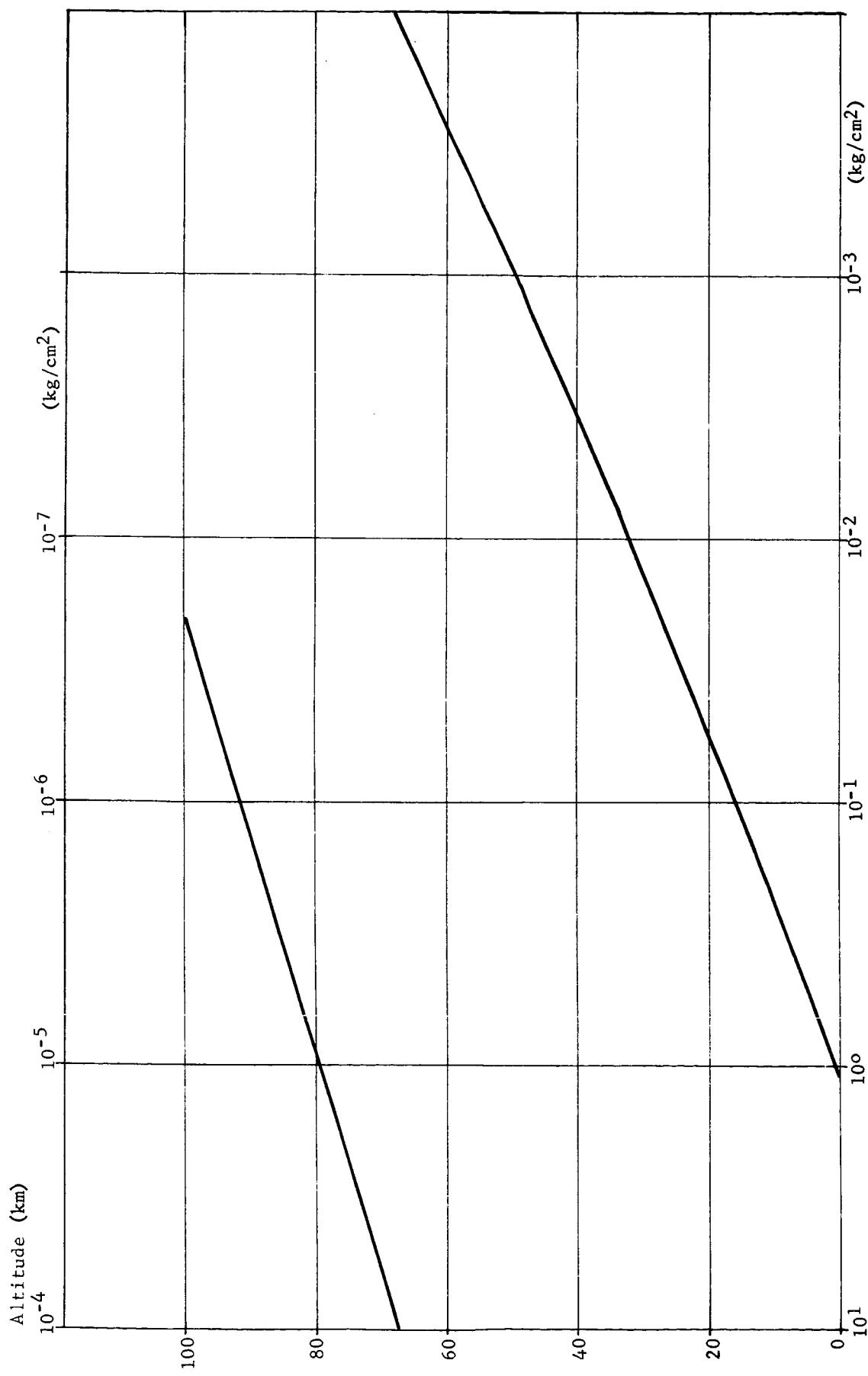


FIGURE 11 AMBIENT PRESSURE

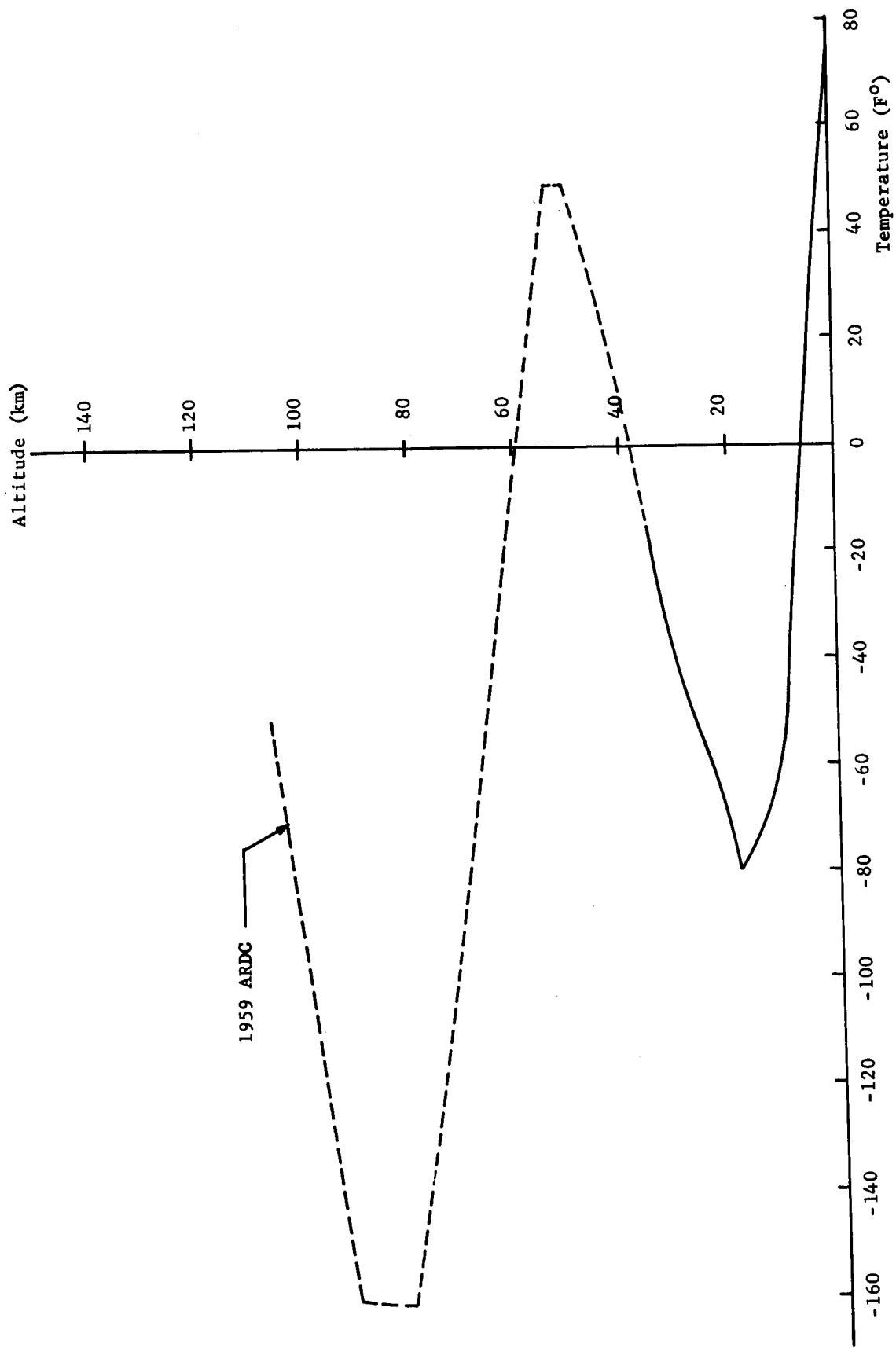


FIGURE 12 TEMPERATURE PROFILE

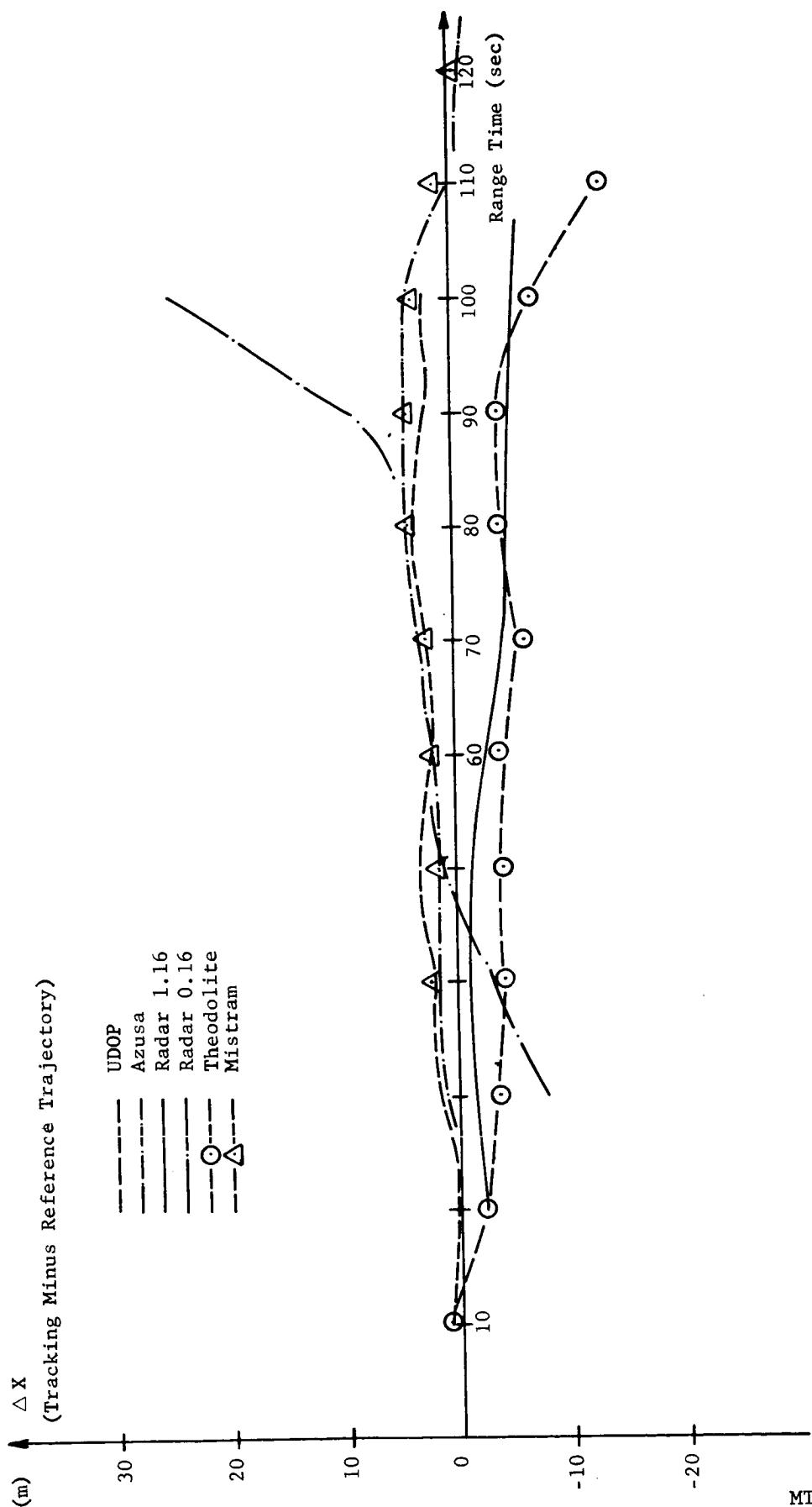


FIGURE 13 TRACKING COMPARISONS
(POWERED FLIGHT)

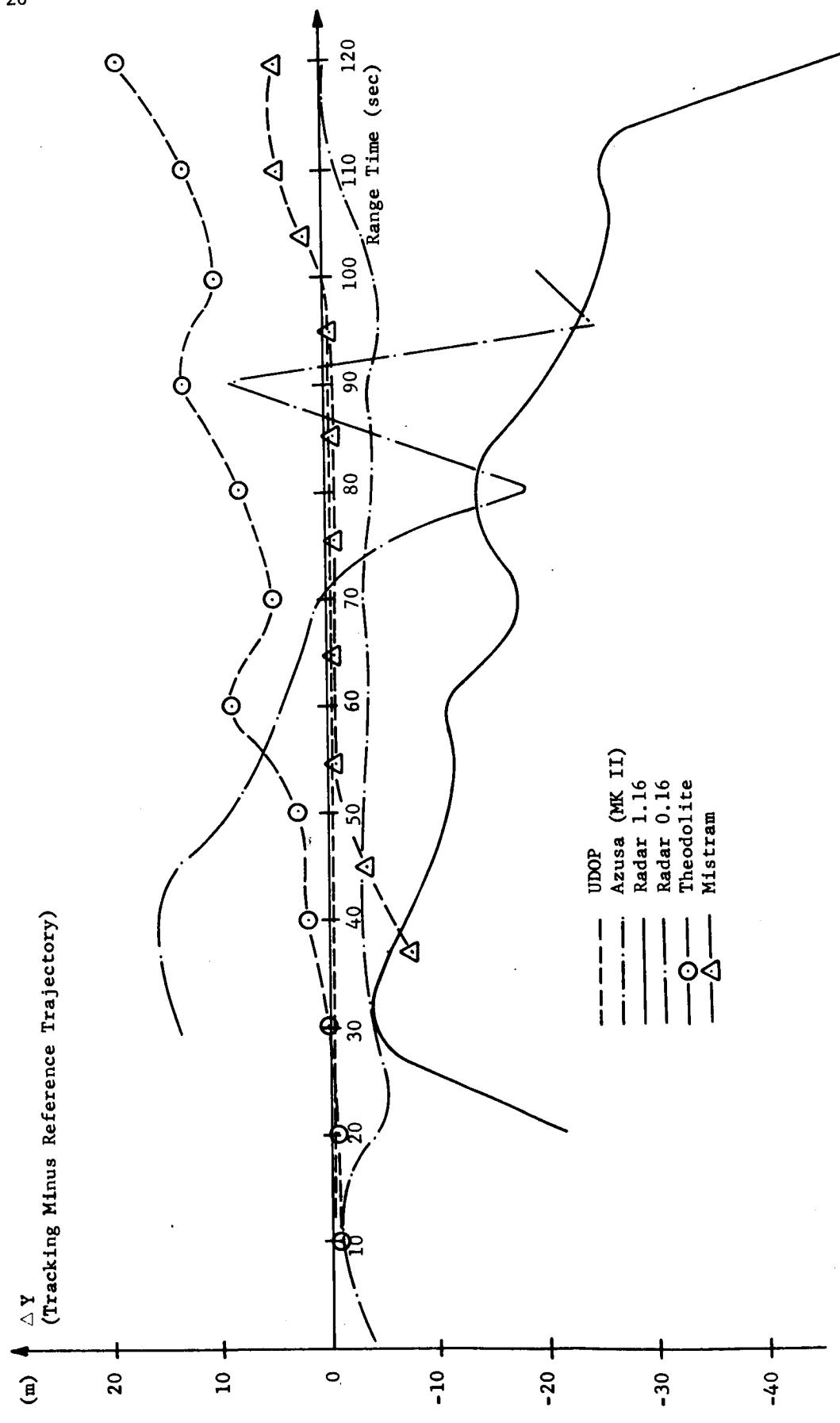


FIGURE 14 TRACKING COMPARISONS (POWERED FLIGHT)

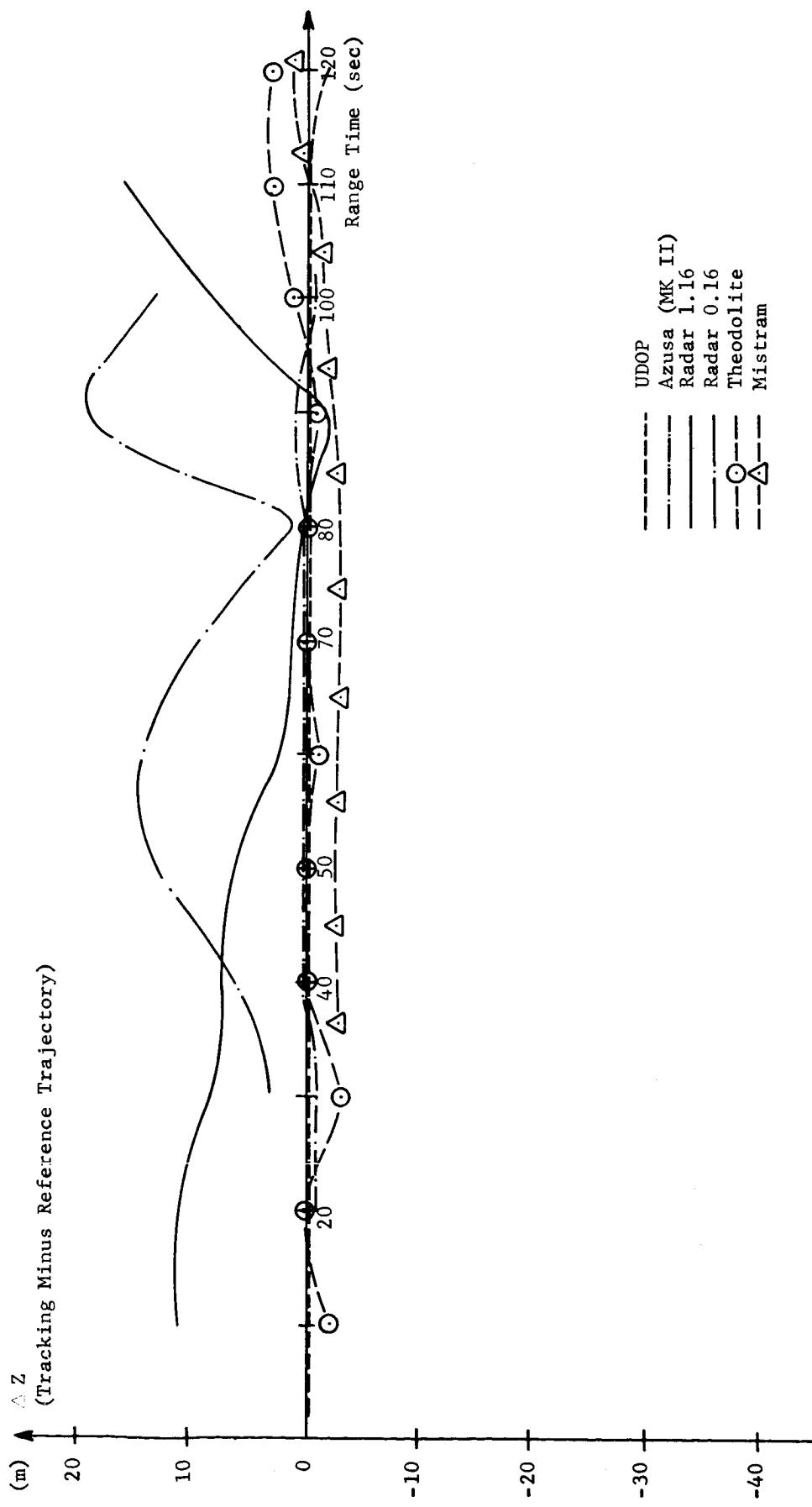


FIGURE 15 TRACKING COMPARISONS (POWERED FLIGHT)

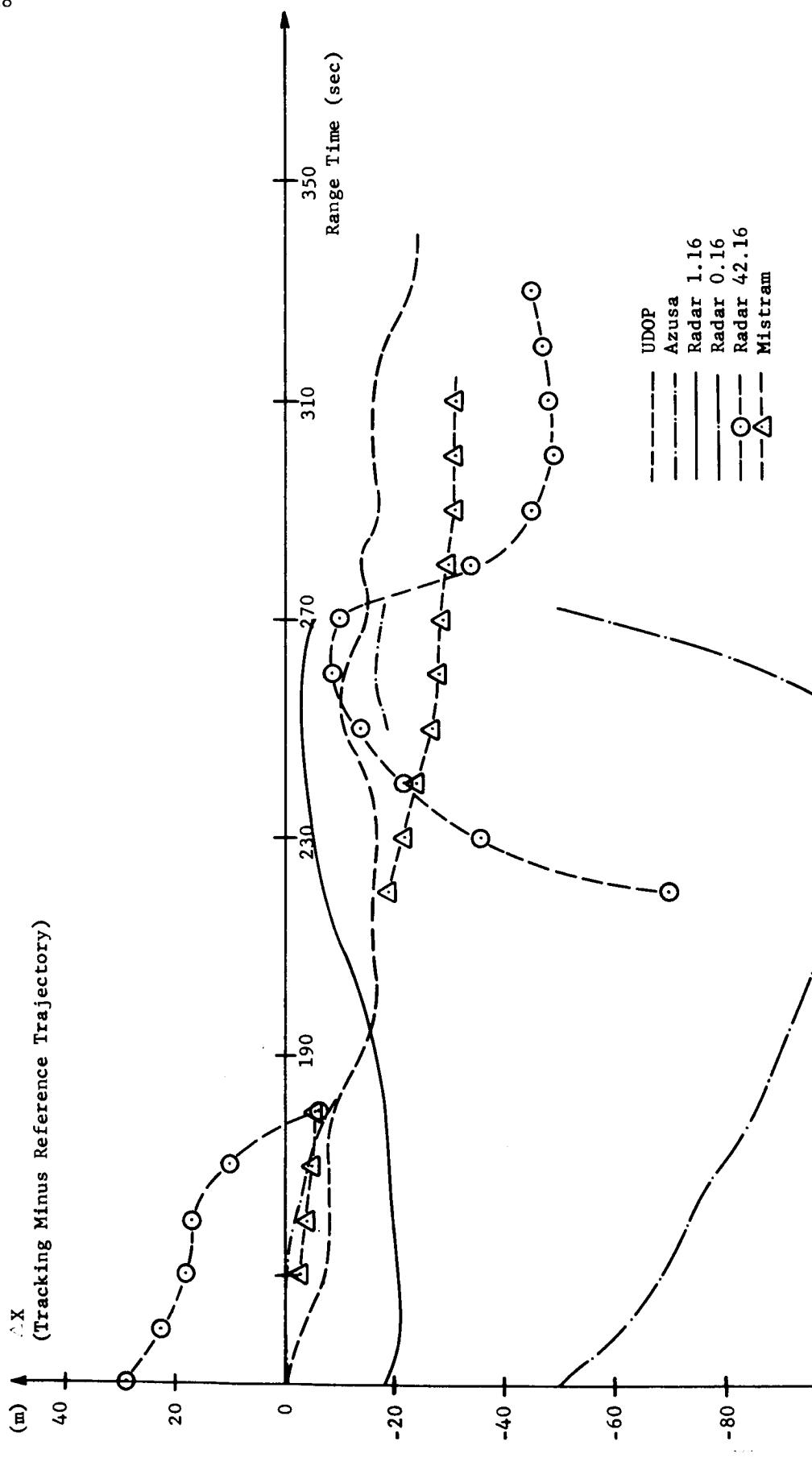


FIGURE 16 TRACKING COMPARISONS (FREE FLIGHT)

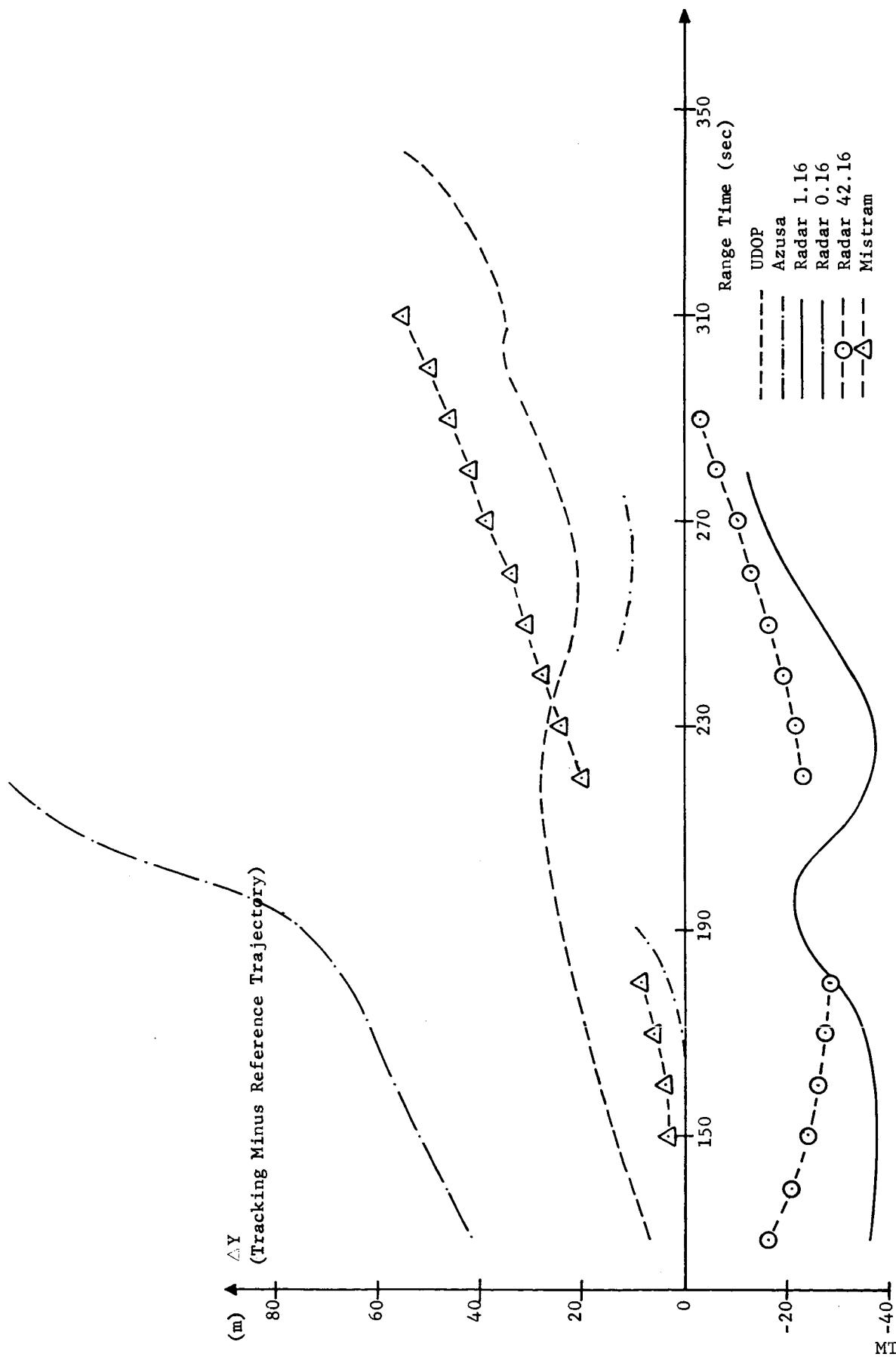


FIGURE 17 TRACKING COMPARISONS (FREE FLIGHT)

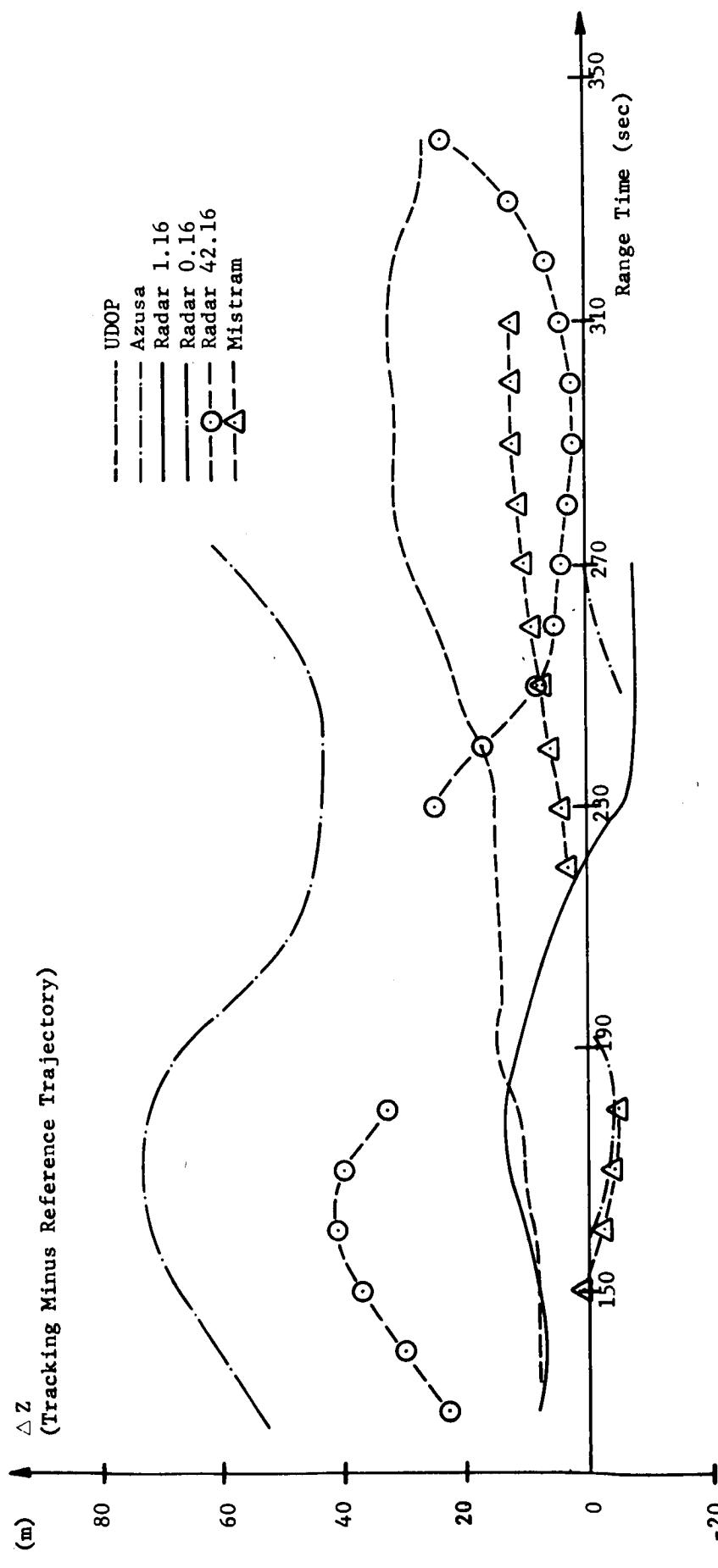
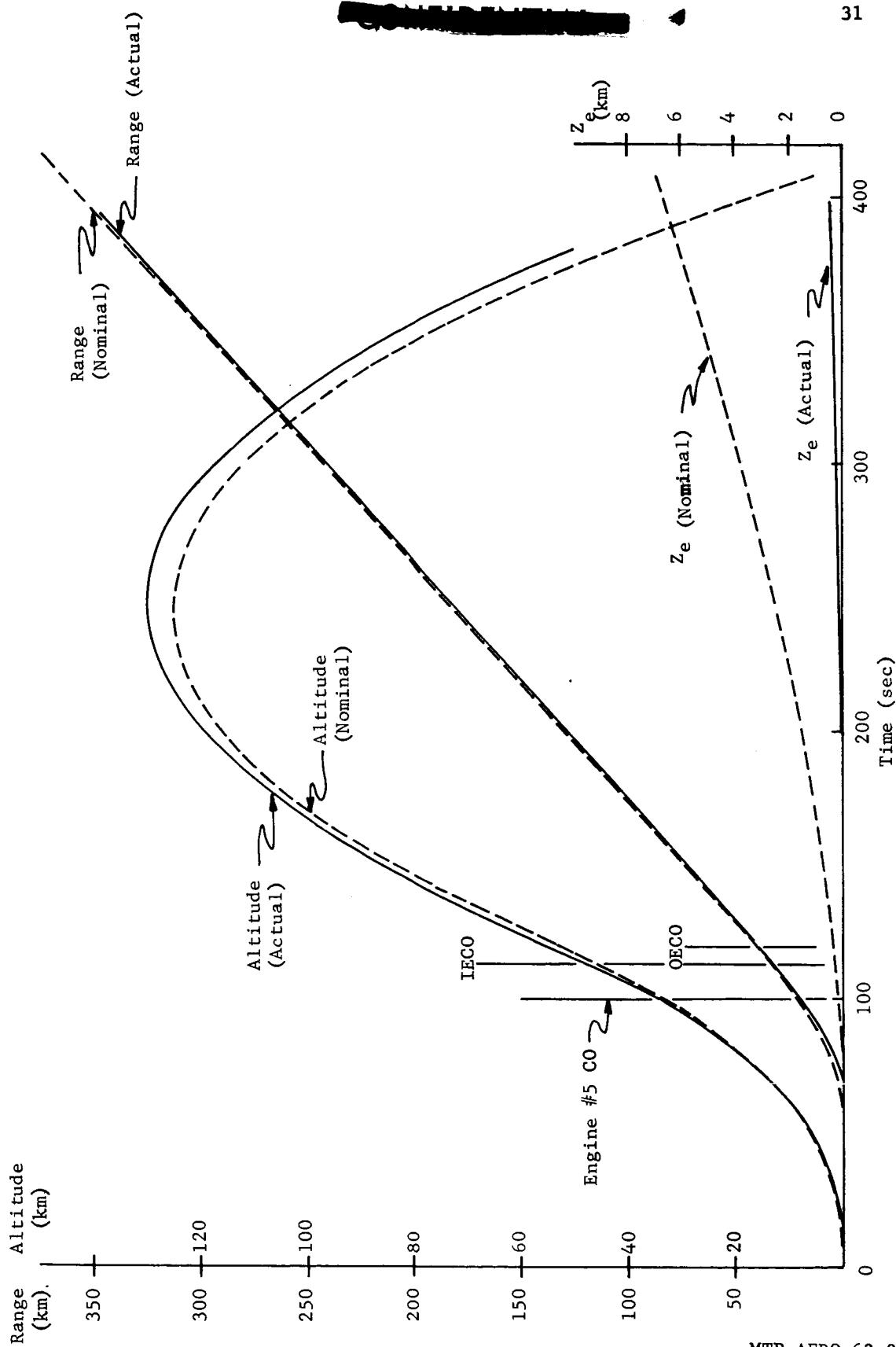


FIGURE 18 TRACKING COMPARISONS (FREE FLIGHT)



MTP-AERO-63-33

FIGURE 19 TRAJECTORY

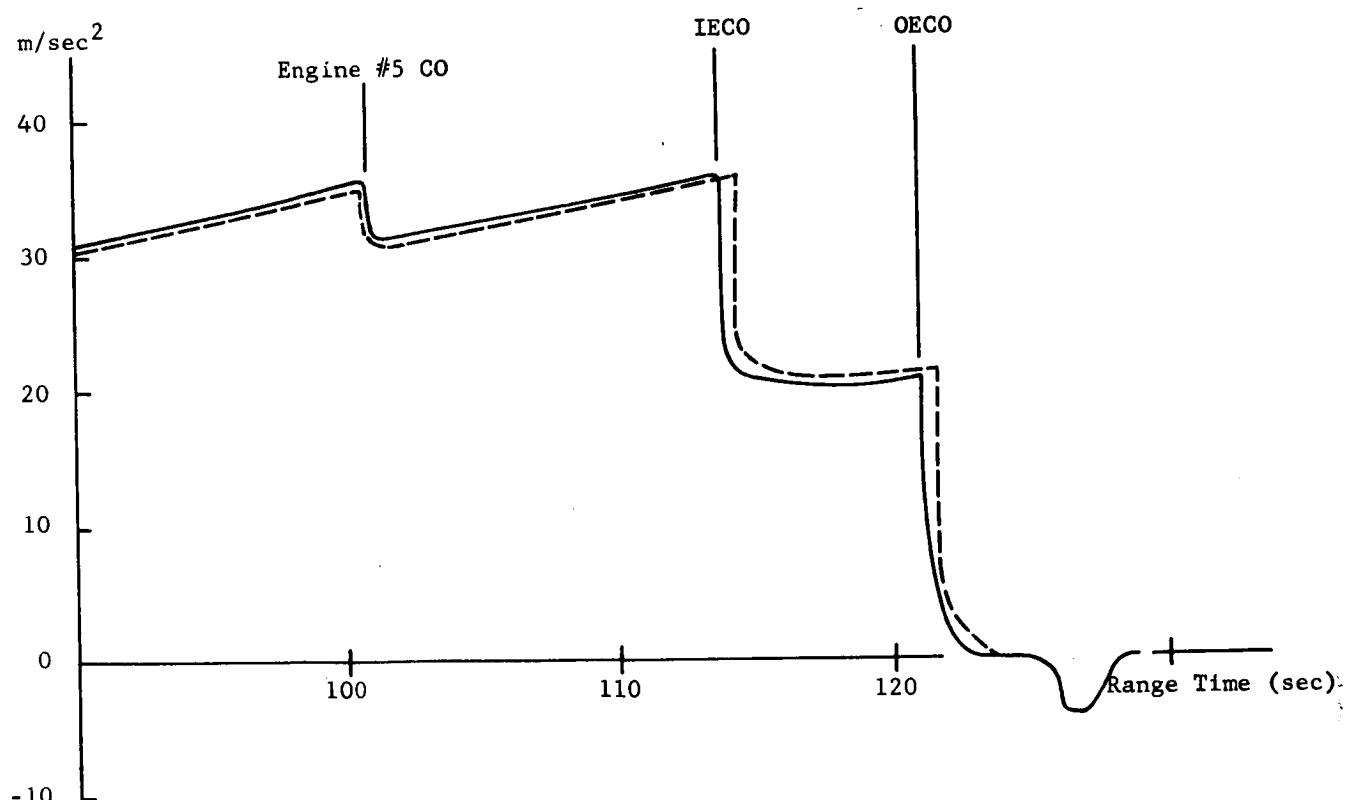
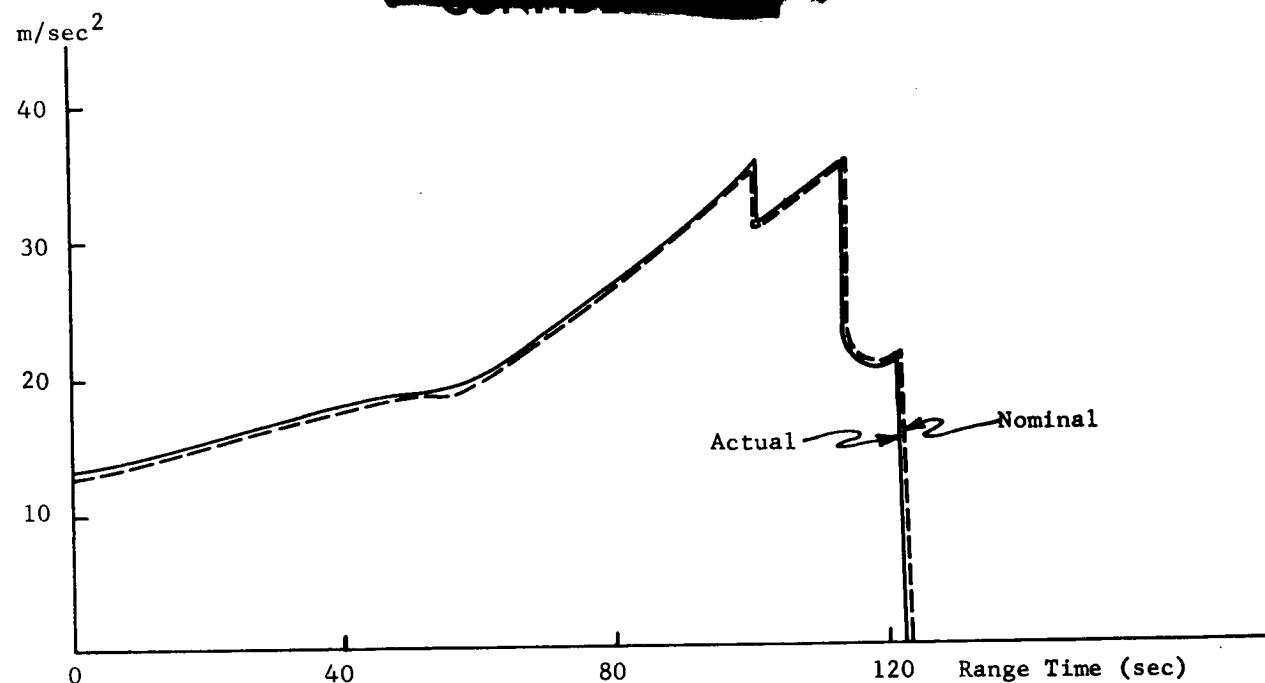


FIGURE 20 LONGITUDINAL ACCELERATION

MTP-AERO-63

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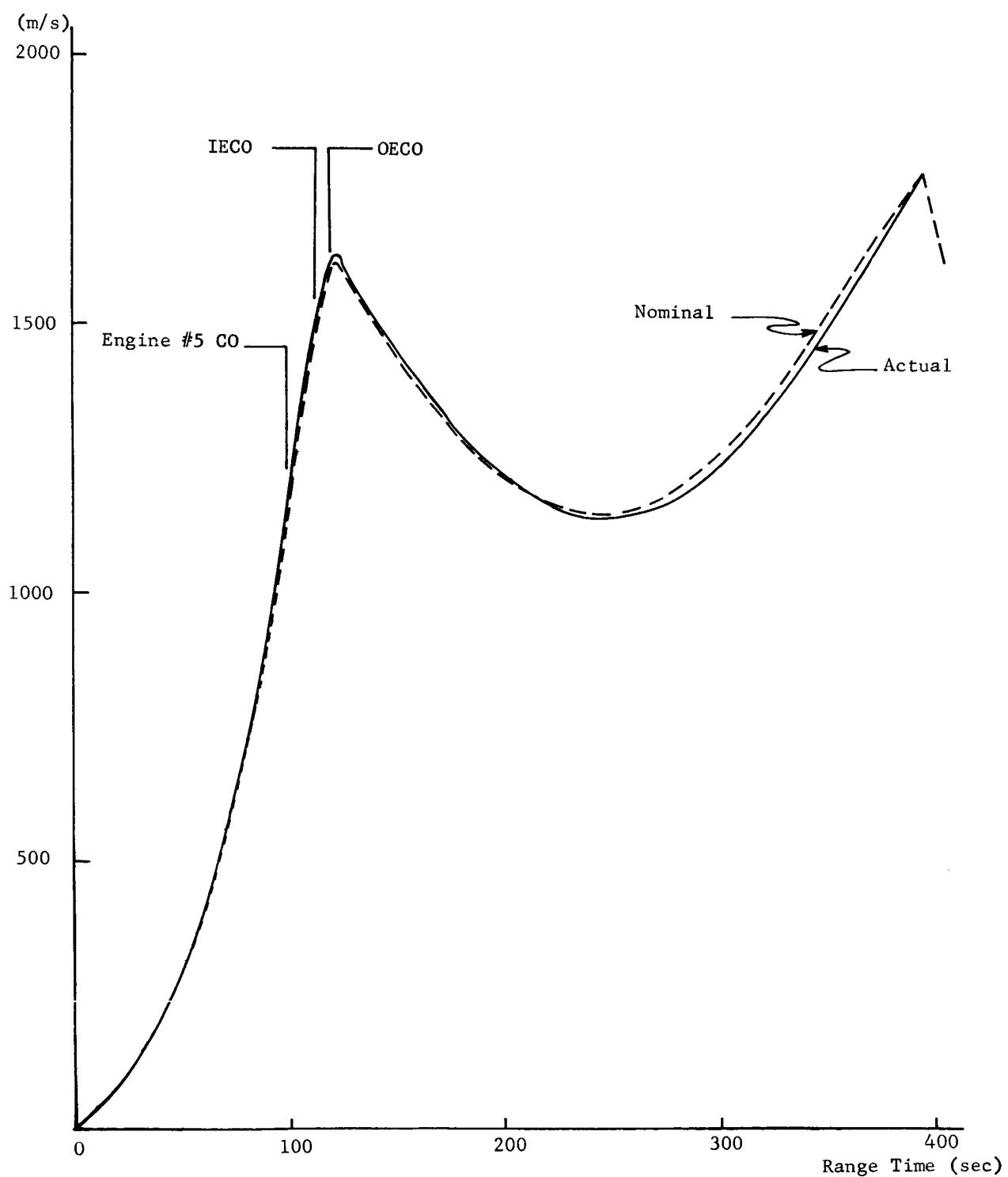
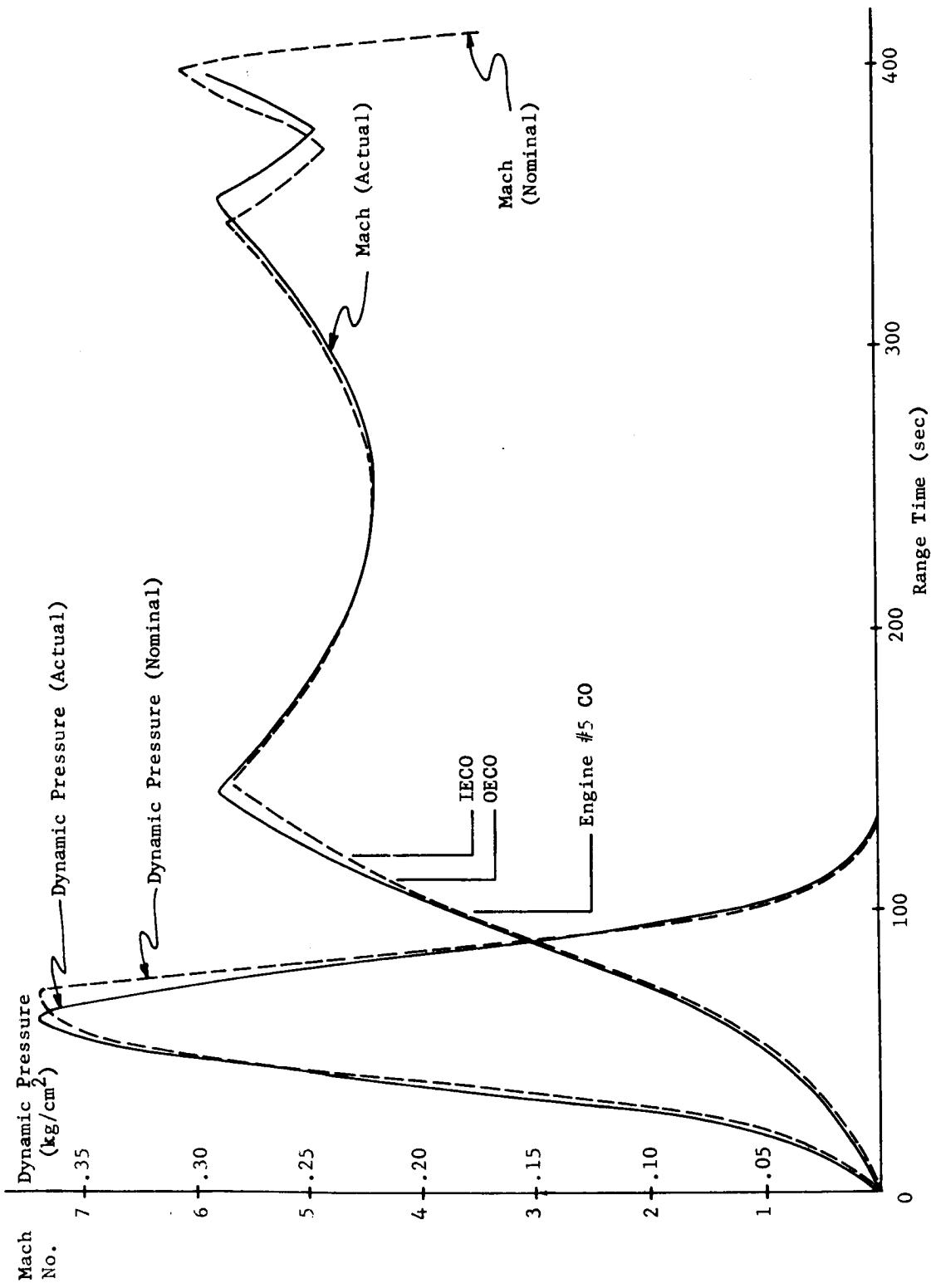


FIGURE 21 EARTH-FIXED VELOCITY

MTP-AERO-63-33



MTP-AERO-63-33

FIGURE 22 MACH AND DYNAMIC PRESSURE

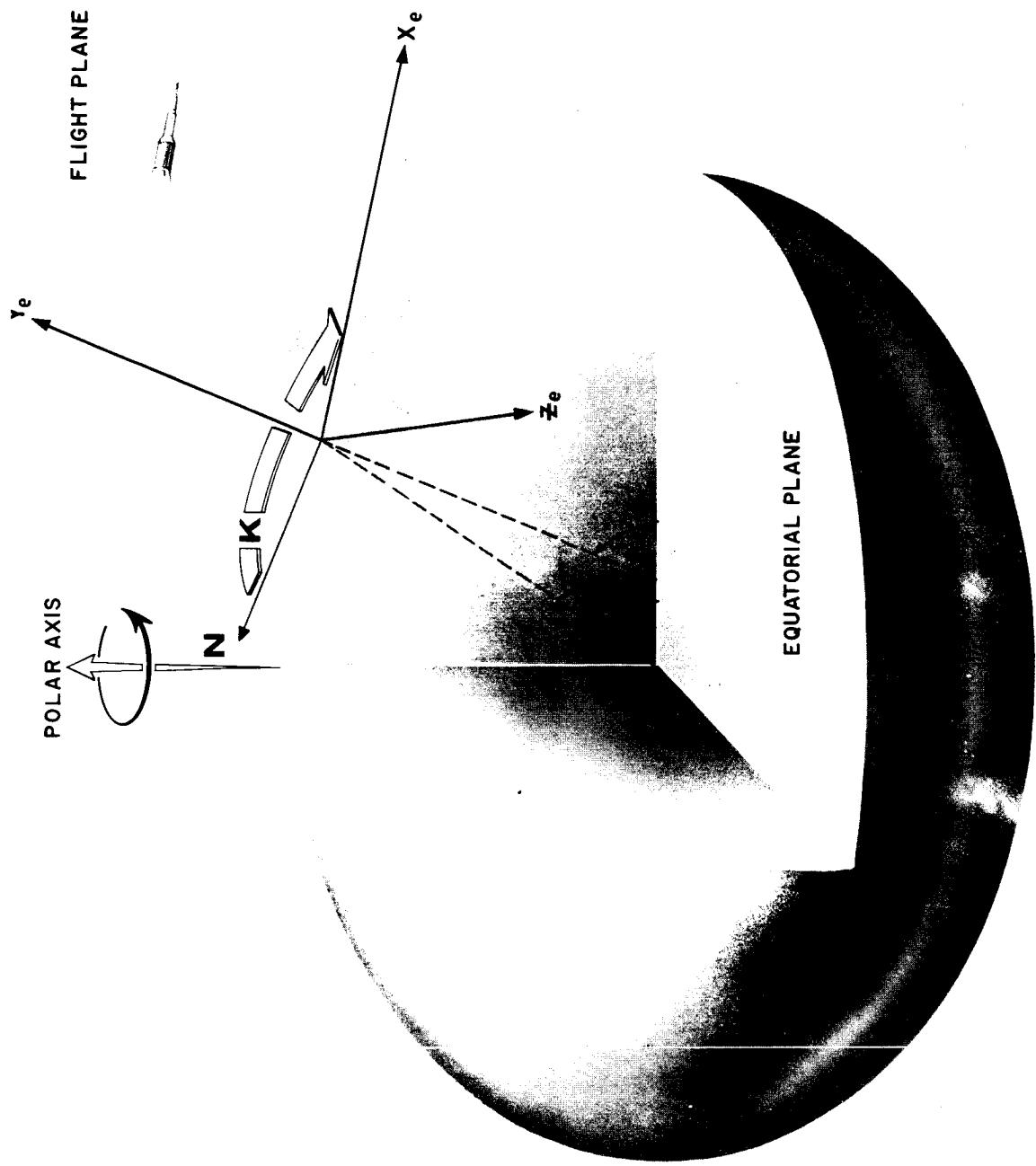


FIGURE 23 EARTH-FIXED COORDINATE SYSTEM

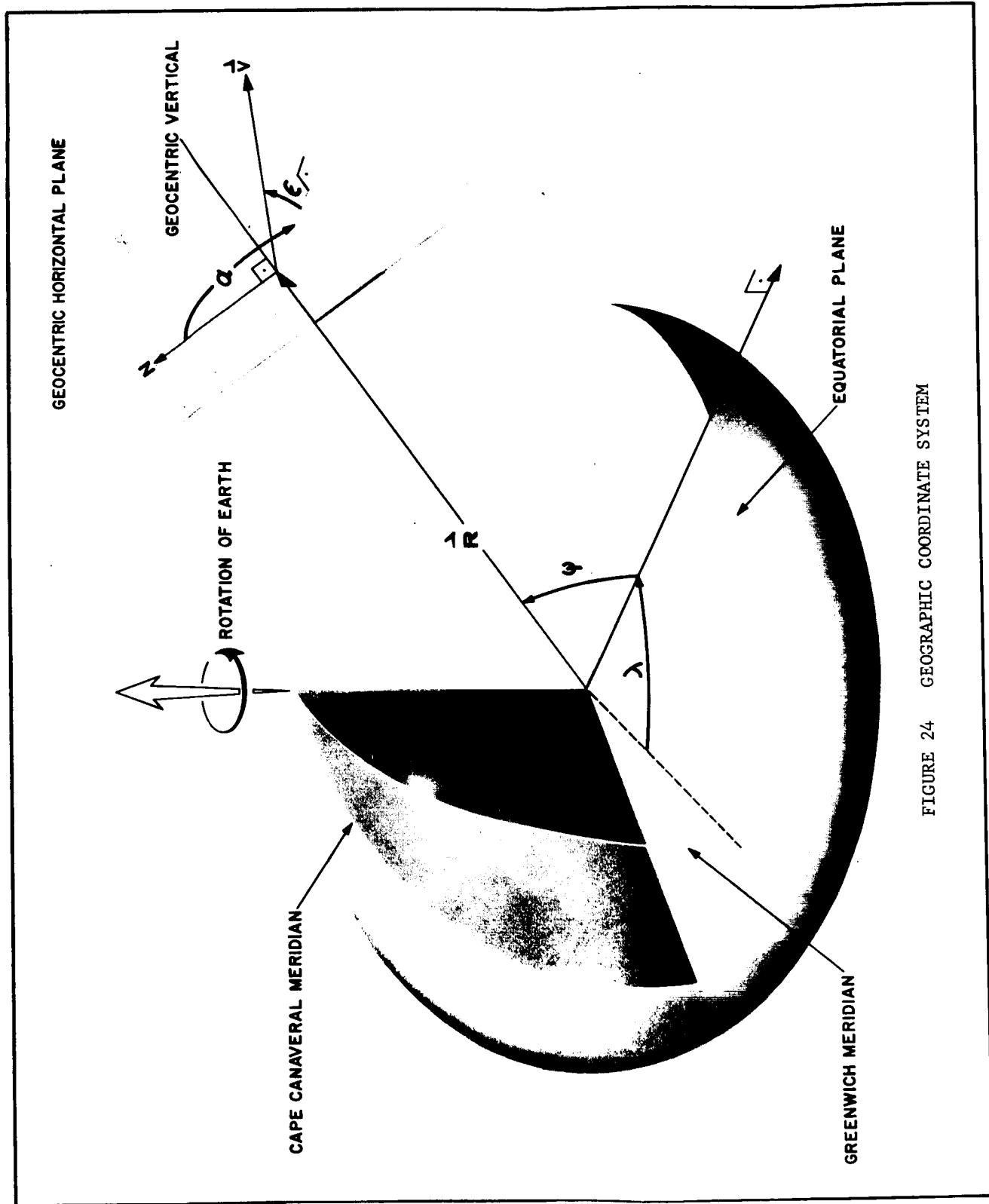


FIGURE 24 GEOGRAPHIC COORDINATE SYSTEM

(U) APPENDIX

The origin of the earth-fixed cartesian coordinate system employed for calculations of this trajectory is the projection of the center of gravity of the complete vehicle at first motion on the Clarke Ellipsoid of 1866.

The X-Z plane is tangent to the reference ellipsoid at the origin of the coordinate system. The positive X-axis is oriented in the launch azimuth direction, 100° E of N. The Y-axis is normal to the X-Z plane and is positive above the origin. The Z-axis is normal to the X-Y plane and is in a right handed relation to the X, Y-axis with the positive direction 190° E of N. The origin of this earth-fixed system rotates with an angular velocity identical to that of the earth. The earth-fixed coordinate system is shown in Figure 23.

The space-fixed coordinate system is parallel to the earth-fixed system described above at the instant of launch but the origin of this system, which is at the initial center of gravity of the vehicle, remains fixed in space as oriented at the instant of launch.

Altitude, range, latitude, longitude, and azimuth, elevation and magnitude for the earth-fixed velocity vector are given for the geographic coordinate system. The subvehicle point is defined as the intersection of the reference ellipsoid and the radius vector from the vehicle to the center of the earth. Altitude is the distance from the subvehicle point to the center of gravity of the vehicle.

The geodetic latitude and longitude refer to the subvehicle point. The local horizontal plane is defined as the plane perpendicular to the radius vector from the vehicle to the center of the earth. Azimuth is the angle between the projection of the velocity vector into the local horizontal plane and the north direction in this plane. Elevation is the angle between velocity vector and the local horizontal plane and is positive above the horizontal plane.

Range is, to a high degree of approximation, the shortest distance along the reference ellipsoid between the launch site and the subvehicle point. The earth model used for all the calculations except range was the Clarke Ellipsoid of 1866. The range given in this report was computed by replacing the ellipsoid with a sphere of an appropriate radius. The equation used to compute this range is given on the following page.

$$\text{Range} = 1/2 (r_o + r_e) R_a \text{ (radians)}$$

where: r_o = radius of the earth at launch site

r_e = radius of the earth at the subvehicle point

R_a = angle between the radii

$$R_a = \tan^{-1} \left[\frac{(x_e^2 + z_e^2)^{\frac{1}{2}}}{r_o + y_e} \right]$$

The geographic coordinate system is shown in Figure 24.

(U) REFERENCES

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2. Sheats, John P., Methods for Establishing A Launch Phase Trajectory, MTP-AERO-63-5, January 11, 1963.
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4. Minzer, R. A., Champion, K.S. W., and Pond, H. C., The ARDC Model Atmosphere, 1959, AFCRC-TR-59-267, August, 1959.
5. Saturn Flight Evaluation Working Group, Results of the Fourth Saturn I Launch Vehicle Test Flight, MPR-SAT-63-6, May 10, 1963, (C).

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
FIRST MOTION						
0.400	0	31	0	0.0	0.0	-0.0
0.5	0	31	-0	0.0	0.4	-0.0
LIFT OFF SIGNAL						
0.580	0	31	0	0.0	0.6	0.0
1.0	0	31	-0	0.0	2.1	-0.0
1.5	0	33	-0	0.1	4.0	0.0
2.0	0	35	0	0.1	5.8	0.0
2.5	0	39	0	0.0	7.7	0.0
3.0	0	43	0	0.0	9.7	0.0
3.5	0	48	0	-0.0	11.6	0.0
4.0	0	54	0	-0.0	13.6	0.0
4.5	0	62	0	-0.1	15.6	0.1
5.0	0	70	0	-0.1	17.7	0.1
5.5	-0	79	0	-0.2	19.7	0.1
6.0	-0	90	0	-0.2	21.8	0.1
6.5	-0	101	0	-0.3	24.0	0.1
7.0	-0	114	0	-0.3	26.1	0.2
7.5	-1	127	0	-0.4	28.3	0.2
8.0	-1	142	1	-0.4	30.5	0.2
8.5	-1	158	1	-0.4	32.8	0.2
9.0	-1	175	1	-0.4	35.0	0.3
9.5	-1	193	1	-0.5	37.3	0.3
10.0	-2	212	1	-0.4	39.6	0.3
10.5	-2	233	1	-0.4	42.0	0.3
11.0	-2	254	1	-0.4	44.3	0.4
11.5	-2	277	2	-0.3	46.7	0.4
12.0	-2	301	2	-0.3	49.1	0.4
12.5	-3	326	2	-0.2	51.5	0.4
13.0	-3	352	2	-0.1	54.0	0.5
13.5	-3	380	2	0.1	56.5	0.5
14.0	-3	409	3	0.2	58.9	0.5
14.5	-2	439	3	0.4	61.5	0.5
15.0	-2	470	3	0.7	64.0	0.5
15.5	-2	503	3	0.9	66.6	0.5
16.0	-1	537	4	1.2	69.2	0.6
16.5	-0	572	4	1.5	71.8	0.6
17.0	0	609	4	1.9	74.4	0.6

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
17.5	1	647	5	2.3	77.0	0.6
18.0	3	686	5	2.7	79.7	0.6
18.5	4	726	5	3.2	82.4	0.6
19.0	6	768	5	3.8	85.1	0.6
19.5	8	811	6	4.3	87.9	0.6
20.0	10	856	6	5.0	90.6	0.6
20.5	12	902	6	5.7	93.4	0.6
21.0	15	949	7	6.4	96.2	0.6
21.5	19	998	7	7.1	99.1	0.5
22.0	22	1048	7	7.9	102.0	0.5
22.5	27	1100	7	8.7	104.9	0.5
23.0	31	1153	8	9.6	107.9	0.4
23.5	36	1208	8	10.5	110.9	0.4
24.0	42	1264	8	11.5	113.9	0.3
24.5	48	1322	8	12.5	116.9	0.3
25.0	54	1381	8	13.5	119.9	0.2
25.5	61	1442	8	14.6	122.9	0.2
26.0	69	1504	9	15.8	126.0	0.1
26.5	77	1568	9	17.0	129.1	0.1
27.0	86	1633	9	18.3	132.2	0.0
27.5	95	1700	9	19.6	135.3	-0.1
28.0	105	1768	9	21.0	138.5	-0.1
28.5	116	1838	8	22.5	141.7	-0.2
29.0	128	1910	8	24.0	144.9	-0.3
29.5	140	1983	8	25.6	148.1	-0.4
30.0	154	2058	8	27.2	151.3	-0.5
30.5	168	2135	8	28.8	154.6	-0.6
31.0	182	2213	7	30.5	157.8	-0.7
31.5	198	2293	7	32.3	161.1	-0.8
32.0	215	2374	7	34.1	164.4	-0.9
32.5	232	2457	6	35.9	167.7	-1.1
33.0	251	2542	6	37.8	171.0	-1.2
33.5	270	2628	5	39.8	174.4	-1.4
34.0	290	2716	4	41.7	177.7	-1.5
34.5	312	2806	3	43.7	181.1	-1.7
35.0	334	2897	2	45.8	184.6	-1.8
35.5	357	2990	1	47.8	188.0	-1.8
36.0	382	3085	1	49.9	191.5	-1.8
36.5	407	3182	-0	52.0	195.0	-1.8
37.0	434	3280	-1	54.0	198.6	-1.8

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
37.5	461	3380	-2	56.1	202.2	-1.8
38.0	490	3482	-3	58.2	205.8	-1.8
38.5	520	3586	-4	60.3	209.5	-1.8
39.0	550	3692	-5	62.4	213.2	-1.8
39.5	582	3799	-6	64.6	216.9	-1.9
40.0	615	3909	-7	66.7	220.7	-1.9
40.5	649	4020	-8	68.9	224.5	-2.0
41.0	684	4133	-9	71.2	228.3	-2.1
41.5	720	4248	-10	73.4	232.1	-2.2
42.0	757	4365	-11	75.7	236.0	-2.3
42.5	796	4484	-12	78.0	239.9	-2.4
43.0	835	4605	-13	80.3	243.8	-2.4
43.5	876	4728	-14	82.7	247.7	-2.5
44.0	918	4853	-16	85.1	251.6	-2.6
44.5	961	4980	-17	87.5	255.5	-2.7
45.0	1005	5109	-18	89.9	259.5	-2.8
45.5	1051	5239	-20	92.4	263.5	-2.9
46.0	1098	5372	-21	94.9	267.5	-3.0
46.5	1146	5507	-23	97.4	271.5	-3.1
47.0	1195	5643	-25	100.0	275.5	-3.2
47.5	1246	5782	-26	102.6	279.6	-3.2
48.0	1298	5923	-28	105.2	283.6	-3.2
48.5	1351	6066	-29	107.8	287.7	-3.2
49.0	1406	6211	-31	110.5	291.7	-3.2
49.5	1462	6358	-33	113.1	295.8	-3.1
50.0	1519	6507	-34	115.9	299.8	-3.1
 MACH ØNE						
50.146	1536	6551	-35	116.7	301.0	-3.1
50.5	1578	6657	-36	118.7	303.8	-3.1
51.0	1638	6810	-37	121.5	307.7	-3.1
51.5	1699	6965	-39	124.4	311.6	-3.1
52.0	1762	7122	-40	127.3	315.4	-3.2
52.5	1826	7281	-42	130.3	319.3	-3.2
53.0	1892	7441	-43	133.4	323.1	-3.3
53.5	1960	7604	-45	136.5	327.0	-3.3
54.0	2029	7768	-47	139.6	330.8	-3.4
54.5	2099	7935	-48	142.8	334.7	-3.4
55.0	2172	8103	-50	146.0	338.6	-3.4
55.5	2245	8273	-52	149.3	342.5	-3.4

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
56.0	2321	8445	-54	152.6	346.5	-3.3
56.5	2398	8620	-55	156.0	350.5	-3.1
57.0	2477	8796	-57	159.5	354.6	-3.0
57.5	2557	8974	-58	163.0	358.7	-2.8
58.0	2640	9155	-60	166.5	362.9	-2.6
58.5	2724	9337	-61	170.1	367.1	-2.4
59.0	2810	9522	-62	173.8	371.3	-2.4
59.5	2898	9708	-63	177.6	375.6	-2.4
60.0	2988	9897	-64	181.4	379.9	-2.5
60.5	3079	10088	-65	185.2	384.3	-2.7
61.0	3173	10282	-67	189.1	388.8	-3.0
61.5	3268	10477	-68	193.1	393.3	-3.4
62.0	3366	10675	-70	197.1	397.9	-3.7
MAXIMUM DYNAMIC PRESSURE						
62.100	3386	10715	-70	197.9	398.8	-3.8
62.5	3465	10875	-72	201.2	402.5	-4.0
63.0	3567	11077	-74	205.3	407.1	-4.2
63.5	3671	11282	-77	209.6	411.8	-4.3
64.0	3777	11489	-79	213.8	416.6	-4.2
64.5	3885	11699	-81	218.1	421.5	-4.0
65.0	3995	11911	-83	222.4	426.5	-3.7
65.5	4107	12125	-85	226.7	431.5	-3.4
66.0	4221	12342	-86	231.0	436.6	-3.1
66.5	4338	12562	-88	235.4	441.8	-2.8
67.0	4457	12784	-89	239.9	447.0	-2.7
67.5	4578	13009	-90	244.4	452.3	-2.6
68.0	4701	13236	-91	249.0	457.6	-2.6
68.5	4827	13467	-93	253.8	463.0	-2.6
69.0	4955	13699	-94	258.6	468.5	-2.6
69.5	5085	13935	-95	263.5	474.0	-2.7
70.0	5218	14173	-97	268.5	479.5	-2.7
70.5	5354	14415	-98	273.6	485.1	-2.6
71.0	5492	14658	-100	278.8	490.8	-2.5
71.5	5633	14905	-101	284.0	496.5	-2.4
72.0	5776	15155	-102	289.4	502.3	-2.2
72.5	5922	15408	-103	294.8	508.1	-2.1
73.0	6071	15663	-104	300.4	514.0	-2.0
73.5	6223	15922	-105	306.0	519.9	-1.9
74.0	6377	16183	-106	311.8	525.9	-1.8

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
74.5	6534	16448	-107	317.7	531.9	-1.8
75.0	6695	16715	-107	323.7	538.0	-1.7
75.5	6858	16985	-108	329.8	544.1	-1.7
76.0	7025	17259	-109	336.0	550.2	-1.6
76.5	7194	17536	-110	342.4	556.4	-1.6
77.0	7367	17815	-111	348.8	562.7	-1.5
77.5	7543	18098	-112	355.3	569.0	-1.3
78.0	7722	18384	-112	361.9	575.3	-1.2
78.5	7905	18674	-113	368.6	581.7	-1.1
79.0	8091	18966	-113	375.5	588.1	-1.0
79.5	8280	19262	-114	382.5	594.6	-0.9
80.0	8473	19561	-114	389.6	601.0	-0.9
80.5	8670	19863	-115	396.9	607.5	-0.8
81.0	8870	20168	-115	404.3	614.1	-0.7
81.5	9074	20477	-115	411.9	620.6	-0.7
82.0	9282	20789	-116	419.5	627.2	-0.6
82.5	9494	21104	-116	427.3	633.9	-0.6
83.0	9709	21423	-116	435.2	640.6	-0.5
83.5	9929	21745	-116	443.2	647.3	-0.5
84.0	10153	22070	-117	451.2	654.1	-0.4
84.5	10380	22399	-117	459.4	661.0	-0.4
85.0	10612	22731	-117	467.7	667.8	-0.3
85.5	10848	23067	-117	476.1	674.8	-0.3
86.0	11088	23406	-117	484.5	681.7	-0.2
86.5	11333	23748	-117	493.1	688.7	-0.2
87.0	11581	24095	-117	501.9	695.8	-0.1
87.5	11834	24444	-117	510.7	702.9	-0.1
88.0	12092	24797	-118	519.6	710.1	0.0
88.5	12354	25154	-117	528.6	717.3	0.1
89.0	12621	25515	-117	537.7	724.5	0.1
89.5	12892	25879	-117	547.0	731.8	0.2
90.0	13168	26246	-117	556.2	739.2	0.2
90.5	13448	26618	-117	565.7	746.6	0.3
91.0	13733	26993	-117	575.2	754.0	0.3
91.5	14023	27372	-117	584.8	761.6	0.4
92.0	14318	27755	-117	594.5	769.2	0.5
92.5	14618	28141	-116	604.2	776.9	0.5
93.0	14922	28531	-116	614.0	784.6	0.6
93.5	15232	28926	-116	624.0	792.4	0.6
94.0	15546	29324	-115	634.0	800.2	0.7

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
94.5	15866	29726	-115	644.1	808.1	0.8
95.0	16190	30132	-115	654.4	816.0	0.8
95.5	16520	30542	-114	665.0	823.9	0.9
96.0	16855	30956	-114	675.5	832.0	1.0
96.5	17196	31374	-113	686.1	840.0	1.1
97.0	17541	31796	-113	696.7	848.1	1.2
97.5	17892	32222	-112	707.5	856.3	1.2
98.0	18248	32652	-111	718.4	864.5	1.3
98.5	18610	33087	-110	729.3	872.7	1.4
99.0	18978	33525	-110	740.4	881.1	1.5
99.5	19351	33968	-109	751.6	889.5	1.6
100.0	19730	34414	-108	763.0	900.0	1.7
100.5	20115	34865	-107	774.6	906.6	1.8
ENGINE N <small>O</small> . 5 CUTOFF SIGNAL						
100.620	20224	34992	-106	777.8	909.1	1.8
BEGIN ENGINE N <small>O</small> . 5 THRUST DECAY						
100.750	20310	35092	-106	780.3	910.9	1.8
101.0	20507	35317	-107	786.0	914.7	1.9
101.5	20903	35776	-106	796.0	921.6	1.9
102.0	21303	36239	-105	806.3	928.6	2.0
END ENGINE N <small>O</small> . 5 THRUST DECAY						
102.430	21652	36639	-104	815.2	934.6	2.0
102.5	21709	36705	-104	816.7	935.6	2.0
103.0	22120	37174	-103	827.1	942.6	2.1
103.5	22536	37647	-102	837.6	949.5	2.2
104.0	22957	38124	-101	848.3	956.6	2.3
104.5	23384	38604	-100	859.0	963.8	2.4
105.0	23817	39087	-98	869.8	970.8	2.5
105.5	24254	39574	-97	880.7	978.2	2.6
106.0	24697	40065	-95	891.5	985.4	2.7
106.5	25146	40560	-94	902.5	992.8	2.8
107.0	25599	41058	-92	913.4	1000.2	2.9
107.5	26059	41560	-91	924.5	1007.7	3.0
108.0	26524	42065	-89	935.8	1015.3	3.1
108.5	26995	42575	-88	946.9	1023.0	3.2
109.0	27471	43088	-86	958.1	1030.7	3.3
109.5	27953	43605	-84	969.4	1038.6	3.4

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
110.0	28441	44127	-82	980.8	1046.5	3.5
110.5	28934	44652	-81	992.3	1054.5	3.6
111.0	29433	45181	-79	1003.8	1062.6	3.7
111.5	29938	45714	-76	1015.3	1070.8	3.8
112.0	30449	46251	-74	1027.0	1079.0	3.9
112.5	30965	46793	-72	1038.7	1087.2	4.0
113.0	31487	47338	-70	1050.3	1095.6	4.1
INBOARD ENGINE CUTOFF SIGNAL						
113.490	31994	47866	-68	1061.7	1103.7	4.3
113.5	32016	47888	-68	1062.1	1103.9	4.3
BEGIN INBOARD ENGINE THRUST DECAY						
113.680	32207	48087	-67	1066.3	1106.9	4.3
114.0	32549	48442	-66	1071.6	1109.9	4.4
114.5	33086	48997	-64	1078.1	1112.6	4.4
115.0	33627	49554	-61	1085.1	1115.5	4.4
115.5	34172	50113	-59	1095.3	1121.6	4.6
END INBOARD ENGINE THRUST DECAY						
115.540	34215	50157	-59	1092.4	1118.7	4.5
116.0	34720	50672	-57	1098.6	1121.3	4.6
116.5	35270	51234	-54	1105.4	1124.2	4.7
117.0	35825	51796	-52	1112.2	1127.1	4.8
117.5	36382	52360	-50	1118.8	1129.9	4.9
118.0	36944	52926	-47	1125.6	1132.8	4.9
118.5	37508	53493	-45	1132.4	1135.6	5.0
119.0	38076	54062	-42	1139.1	1138.6	5.1
119.5	38647	54632	-40	1146.0	1141.5	5.1
120.0	39222	55203	-37	1152.9	1144.6	5.2
120.5	39800	55776	-34	1159.7	1147.5	5.3
121.0	40381	56350	-31	1166.6	1150.3	5.4
BEGIN OUTBOARD ENGINE THRUST DECAY						
121.100	40498	56465	-31	1168.0	1150.8	5.4
OUTBOARD ENGINE CUTOFF SIGNAL						
121.120	40522	56488	-31	1168.1	1150.7	5.4
MAXIMUM EARTH-FIXED VELOCITY						
121.500	40966	56926	-29	1171.1	1149.4	5.5

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
122.0	41551	57500	-26	1171.6	1146.5	5.6
122.5	42137	58072	-23	1172.1	1142.3	5.6
123.0	42723	58642	-20	1172.0	1137.6	5.7
END ØUTBØRD ENGINE THRUST DECAY						
123.350	43133	59040	-18	1172.0	1134.3	5.7
123.5	43309	59210	-18	1171.9	1132.9	5.7
124.0	43894	59776	-15	1171.7	1128.2	5.8
124.5	44480	60339	-12	1171.6	1123.5	5.8
125.0	45068	60902	-10	1171.5	1118.8	5.9
RETRO RØCKET IGNITION						
125.460	45608	61417	-7	1171.4	1114.6	5.7
125.5	45654	61462	-7	1171.4	1114.1	5.7
126.0	46240	62018	-4	1170.0	1107.7	5.7
126.5	46825	62570	-1	1168.4	1101.4	5.9
127.0	47409	63118	3	1167.0	1095.1	5.9
127.5	47992	63664	5	1166.1	1089.4	6.2
RETRO RØCKET BURNØUT						
127.600	48109	63772	6	1166.0	1088.4	6.2
128.0	48573	64208	8	1165.8	1084.5	6.3
128.5	49156	64749	11	1165.6	1079.6	6.3
129.0	49740	65286	14	1165.4	1074.8	6.4
129.5	50322	65822	18	1165.2	1070.0	6.4
130.0	50904	66356	22	1165.1	1065.3	6.5
130.5	51485	66888	24	1164.9	1060.6	6.5
131.0	52068	67418	28	1164.8	1055.9	6.6
131.5	52649	67945	32	1164.6	1051.2	6.6
132.0	53231	68470	35	1164.5	1046.4	6.7
132.5	53813	68992	38	1164.4	1041.7	6.7
133.0	54395	69511	42	1164.2	1037.0	6.8
133.5	54977	70029	45	1164.1	1032.3	6.9
134.0	55559	70544	49	1164.0	1027.6	7.1
134.5	56141	71056	52	1164.0	1022.8	7.2
135.0	56723	71566	56	1163.9	1018.1	7.4
135.5	57304	72074	59	1163.7	1013.4	7.5
136.0	57886	72580	63	1163.6	1008.7	7.4
136.5	58468	73083	67	1163.4	1004.0	7.4
137.0	59050	73584	70	1163.3	999.3	7.3

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
137.5	59631	74082	74	1163.2	994.6	7.3
138.0	60213	74578	77	1163.1	989.9	7.4
138.5	60794	75072	81	1162.9	985.2	7.4
139.0	61376	75564	85	1162.7	980.6	7.4
139.5	61957	76053	88	1162.6	975.9	7.5
140.0	62538	76540	92	1162.6	971.2	7.6
140.5	63119	77024	96	1162.6	966.4	7.7
141.0	63701	77506	100	1162.5	961.6	7.7
141.5	64282	77986	104	1162.3	957.0	7.7
142.0	64863	78463	108	1162.1	952.3	7.6
142.5	65444	78938	111	1161.9	947.7	7.6
143.0	66025	79411	115	1161.8	943.0	7.7
143.5	66606	79881	119	1161.7	938.3	7.8
144.0	67187	80349	123	1161.7	933.5	7.9
144.5	67767	80815	127	1161.6	928.8	7.9
145.0	68348	81278	131	1161.5	924.1	8.0
145.5	68929	81739	135	1161.4	919.4	8.1
146.0	69510	82197	139	1161.3	914.7	8.2
146.5	70090	82653	143	1161.2	910.0	8.3
147.0	70671	83107	147	1161.1	905.3	8.4
147.5	71251	83559	151	1161.0	900.7	8.4
148.0	71832	84008	155	1160.9	896.0	8.5
148.5	72412	84455	159	1160.8	891.2	8.5
149.0	72992	84899	164	1160.7	886.5	8.5
149.5	73573	85341	168	1160.6	881.8	8.6
150.0	74153	85781	172	1160.5	877.1	8.7
150.5	74733	86218	176	1160.4	872.4	8.7
151.0	75313	86653	181	1160.3	867.7	8.8
151.5	75893	87086	185	1160.1	863.0	8.8
152.0	76473	87516	189	1160.0	858.3	8.9
152.5	77053	87944	194	1159.9	853.6	8.9
153.0	77633	88370	198	1159.8	848.9	9.0
153.5	78213	88793	203	1159.7	844.3	9.0
154.0	78793	89214	207	1159.6	839.6	9.1
154.5	79373	89633	212	1159.5	834.9	9.1
155.0	79953	90049	216	1159.4	830.2	9.1
155.5	80532	90463	221	1159.3	825.5	9.2
156.0	81112	90875	226	1159.1	820.8	9.2
156.5	81691	91284	230	1159.0	816.1	9.3
157.0	82271	91691	235	1158.9	811.5	9.3

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
157.5	82850	92095	240	1158.8	806.8	9.4
158.0	83430	92498	244	1158.7	802.1	9.4
158.5	84009	92898	249	1158.6	797.4	9.5
159.0	84588	93295	254	1158.5	792.7	9.5
159.5	85167	93690	259	1158.4	788.0	9.6
160.0	85747	94083	263	1158.2	783.4	9.6
160.5	86326	94474	268	1158.1	778.7	9.7
161.0	86905	94862	273	1158.0	774.0	9.7
161.5	87484	95248	278	1157.9	769.3	9.8
162.0	88063	95631	283	1157.8	764.7	9.8
162.5	88642	96012	288	1157.7	760.0	9.9
163.0	89220	96391	293	1157.6	755.3	9.9
163.5	89799	96768	298	1157.5	750.6	10.0
164.0	90378	97142	303	1157.3	745.9	10.0
164.5	90956	97514	308	1157.2	741.3	10.1
165.0	91535	97883	313	1157.1	736.6	10.1
165.5	92114	98250	318	1157.0	731.9	10.2
166.0	92692	98615	323	1156.9	727.3	10.2
166.5	93270	98977	328	1156.8	722.6	10.3
167.0	93849	99337	333	1156.7	717.9	10.3
167.5	94427	99695	338	1156.5	713.2	10.4
168.0	95005	100051	344	1156.4	708.6	10.4
168.5	95583	100404	349	1156.3	703.9	10.5
169.0	96162	100755	354	1156.2	699.2	10.5
169.5	96740	101103	359	1156.1	694.6	10.6
170.0	97318	101449	365	1156.0	689.9	10.6
170.5	97896	101793	370	1155.9	685.2	10.7
171.0	98474	102134	375	1155.7	680.5	10.7
171.5	99051	102473	381	1155.6	675.9	10.8
172.0	99629	102810	386	1155.5	671.2	10.8
172.5	100207	103145	392	1155.4	666.5	10.9
173.0	100785	103477	397	1155.3	661.9	10.9
173.5	101362	103807	402	1155.2	657.2	10.9
174.0	101940	104134	408	1155.0	652.6	11.0
174.5	102517	104459	413	1154.9	647.9	11.0
175.0	103095	104782	419	1154.8	643.2	11.1
175.5	103672	105102	425	1154.7	638.6	11.1
176.0	104249	105420	430	1154.6	633.9	11.2
176.5	104827	105736	436	1154.5	629.2	11.2
177.0	105404	106050	441	1154.3	624.6	11.3

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
177.5	105981	106361	447	1154.2	619.9	11.3
178.0	106558	106670	453	1154.1	615.2	11.4
178.5	107135	106976	458	1154.0	610.6	11.4
179.0	107712	107280	464	1153.9	605.9	11.5
179.5	108289	107582	470	1153.8	601.3	11.5
180.0	108866	107881	476	1153.6	596.6	11.6
180.5	109443	108179	481	1153.5	592.0	11.6
181.0	110019	108473	487	1153.4	587.3	11.7
181.5	110596	108766	493	1153.3	582.6	11.7
182.0	111173	109056	499	1153.2	578.0	11.7
182.5	111749	109344	505	1153.1	573.3	11.8
183.0	112326	109629	511	1152.9	568.7	11.8
183.5	112902	109912	517	1152.8	564.0	11.9
184.0	113478	110193	523	1152.7	559.4	11.9
184.5	114055	110472	529	1152.6	554.7	12.0
185.0	114631	110748	535	1152.5	550.0	12.0
185.5	115207	111022	541	1152.3	545.4	12.1
186.0	115783	111293	547	1152.2	540.7	12.1
186.5	116359	111563	553	1152.1	536.1	12.2
187.0	116935	111829	559	1152.0	531.4	12.2
187.5	117511	112094	565	1151.9	526.8	12.3
188.0	118087	112356	571	1151.8	522.1	12.3
188.5	118663	112616	577	1151.6	517.5	12.3
189.0	119239	112874	583	1151.5	512.8	12.4
189.5	119815	113129	590	1151.4	508.2	12.4
190.0	120390	113382	596	1151.3	503.5	12.5
190.5	120966	113632	602	1151.2	498.9	12.5
191.0	121542	113881	608	1151.0	494.2	12.6
191.5	122117	114127	615	1150.9	489.6	12.6
192.0	122692	114370	621	1150.8	484.9	12.7
192.5	123268	114612	627	1150.7	480.3	12.7
193.0	123843	114850	634	1150.6	475.6	12.8
193.5	124418	115087	640	1150.4	471.0	12.8
194.0	124994	115322	647	1150.3	466.3	12.8
194.5	125569	115554	653	1150.2	461.7	12.9
195.0	126144	115783	659	1150.1	457.0	12.9
195.5	126719	116010	666	1150.0	452.4	13.0
196.0	127294	116235	672	1149.8	447.7	13.0
196.5	127869	116458	679	1149.7	443.1	13.1
197.0	128443	116679	685	1149.6	438.4	13.1

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
197.5	129018	116897	692	1149.5	433.8	13.2
198.0	129593	117112	699	1149.3	429.2	13.2
198.5	130167	117326	705	1149.2	424.5	13.2
199.0	130742	117537	712	1149.1	419.9	13.3
199.5	131317	117746	719	1149.0	415.2	13.3
200.0	131891	117952	725	1148.9	410.6	13.4
200.5	132465	118156	732	1148.7	405.9	13.4
201.0	133040	118358	739	1148.6	401.3	13.5
201.5	133614	118558	745	1148.5	396.6	13.5
202.0	134188	118755	752	1148.4	392.0	13.6
202.5	134762	118950	759	1148.2	387.4	13.6
203.0	135336	119142	766	1148.1	382.7	13.6
203.5	135910	119332	773	1148.0	378.1	13.7
204.0	136484	119520	779	1147.9	373.4	13.7
204.5	137058	119706	786	1147.8	368.8	13.8
205.0	137632	119889	793	1147.6	364.2	13.8
205.5	138206	120070	800	1147.5	359.5	13.9
206.0	138780	120248	807	1147.4	354.9	13.9
206.5	139353	120425	814	1147.3	350.2	14.0
207.0	139927	120599	821	1147.1	345.6	14.0
207.5	140500	120770	828	1147.0	341.0	14.0
208.0	141074	120940	835	1146.9	336.3	14.1
208.5	141647	121107	842	1146.8	331.7	14.1
209.0	142221	121271	849	1146.6	327.0	14.2
209.5	142794	121434	856	1146.5	322.4	14.2
210.0	143367	121594	863	1146.4	317.8	14.3
210.5	143940	121751	871	1146.3	313.1	14.3
211.0	144513	121907	878	1146.1	308.5	14.3
211.5	145086	122060	885	1146.0	303.8	14.4
212.0	145659	122211	892	1145.9	299.2	14.4
212.5	146232	122359	899	1145.8	294.6	14.5
213.0	146805	122505	907	1145.6	289.9	14.5
213.5	147378	122649	914	1145.5	285.3	14.6
214.0	147951	122790	921	1145.4	280.7	14.6
214.5	148523	122930	928	1145.3	276.0	14.6
215.0	149096	123067	936	1145.1	271.4	14.7
215.5	149669	123201	943	1145.0	266.8	14.7
216.0	150241	123333	950	1144.9	262.1	14.8
216.5	150813	123463	958	1144.8	257.5	14.8
217.0	151386	123591	965	1144.6	252.8	14.9

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
217.5	151958	123716	973	1144.5	248.2	14.9
218.0	152530	123839	980	1144.4	243.6	14.9
218.5	153102	123959	988	1144.3	238.9	15.0
219.0	153675	124078	995	1144.1	234.3	15.0
219.5	154247	124194	1003	1144.0	229.7	15.1
220.0	154819	124307	1010	1143.9	225.0	15.1
220.5	155390	124419	1018	1143.8	220.4	15.1
221.0	155962	124528	1025	1143.6	215.8	15.2
221.5	156534	124635	1033	1143.5	211.1	15.2
222.0	157106	124739	1041	1143.4	206.5	15.3
222.5	157677	124841	1048	1143.2	201.9	15.3
223.0	158249	124941	1056	1143.1	197.2	15.4
223.5	158821	125038	1064	1143.0	192.6	15.4
224.0	159392	125134	1071	1142.9	188.0	15.4
224.5	159963	125226	1079	1142.7	183.3	15.5
225.0	160535	125317	1087	1142.6	178.7	15.5
225.5	161106	125405	1095	1142.5	174.1	15.6
226.0	161677	125491	1102	1142.4	169.5	15.6
226.5	162248	125574	1110	1142.2	164.8	15.6
227.0	162819	125656	1118	1142.1	160.2	15.7
227.5	163390	125735	1126	1142.0	155.6	15.7
228.0	163961	125811	1134	1141.8	150.9	15.8
228.5	164532	125886	1142	1141.7	146.3	15.8
229.0	165103	125958	1150	1141.6	141.7	15.9
229.5	165674	126027	1158	1141.5	137.0	15.9
230.0	166245	126095	1165	1141.3	132.4	15.9
230.5	166815	126160	1173	1141.2	127.8	16.0
231.0	167386	126222	1181	1141.1	123.1	16.0
231.5	167956	126283	1189	1140.9	118.5	16.1
232.0	168527	126341	1197	1140.8	113.9	16.1
232.5	169097	126397	1206	1140.7	109.3	16.1
233.0	169667	126450	1214	1140.6	104.6	16.2
233.5	170238	126501	1222	1140.4	100.0	16.2
234.0	170808	126550	1230	1140.3	95.4	16.3
234.5	171378	126597	1238	1140.2	90.7	16.3
235.0	171948	126641	1246	1140.0	86.1	16.3
235.5	172518	126683	1254	1139.9	81.5	16.4
236.0	173088	126722	1263	1139.8	76.8	16.4
236.5	173658	126760	1271	1139.6	72.2	16.5
237.0	174227	126795	1279	1139.5	67.6	16.5

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
237.5	174797	126827	1287	1139.4	63.0	16.5
238.0	175367	126858	1296	1139.2	58.3	16.6
238.5	175936	126886	1304	1139.1	53.7	16.6
239.0	176506	126911	1312	1139.0	49.1	16.7
239.5	177075	126935	1320	1138.9	44.4	16.7
240.0	177645	126956	1329	1138.7	39.8	16.7
240.5	178214	126974	1337	1138.6	35.2	16.8
241.0	178783	126991	1346	1138.5	30.6	16.8
241.5	179353	127005	1354	1138.3	25.9	16.9
242.0	179922	127017	1362	1138.2	21.3	16.9
242.5	180491	127026	1371	1138.1	16.7	16.9
243.0	181060	127033	1379	1137.9	12.0	17.0
243.5	181629	127038	1388	1137.8	7.4	17.0
244.0	182197	127041	1396	1137.7	2.8	17.0
244.5	182766	127041	1405	1137.5	-1.8	17.1
245.0	183335	127039	1413	1137.4	-6.5	17.1
245.5	183904	127035	1422	1137.3	-11.1	17.2
246.0	184472	127028	1431	1137.1	-15.7	17.2
246.5	185041	127019	1439	1137.0	-20.4	17.2
247.0	185609	127007	1448	1136.9	-25.0	17.3
247.5	186178	126994	1457	1136.7	-29.6	17.3
APEX						
247.799	186519	126985	1462	1136.7	-32.4	17.3
248.0	186746	126978	1465	1136.6	-34.2	17.4
248.5	187314	126960	1474	1136.5	-38.9	17.4
249.0	187882	126939	1483	1136.3	-43.5	17.4
249.5	188451	126916	1491	1136.2	-48.1	17.5
250.0	189019	126891	1500	1136.1	-52.8	17.5
250.5	189587	126863	1509	1135.9	-57.4	17.5
251.0	190155	126833	1518	1135.8	-62.0	17.6
251.5	190722	126801	1526	1135.7	-66.6	17.6
252.0	191290	126767	1535	1135.5	-71.3	17.7
252.5	191858	126730	1544	1135.4	-75.9	17.7
253.0	192426	126691	1553	1135.3	-80.5	17.7
253.5	192993	126649	1562	1135.1	-85.2	17.8
254.0	193561	126606	1571	1135.0	-89.8	17.8
254.5	194128	126560	1580	1134.9	-94.4	17.9
255.0	194696	126511	1589	1134.7	-99.0	17.9
255.5	195263	126461	1598	1134.6	-103.7	17.9

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
256.0	195830	126408	1606	1134.5	-108.3	18.0
256.5	196397	126352	1615	1134.3	-112.9	18.0
257.0	196965	126295	1624	1134.2	-117.6	18.0
257.5	197532	126235	1634	1134.1	-122.2	18.1
258.0	198099	126173	1643	1133.9	-126.8	18.1
258.5	198666	126108	1652	1133.8	-131.4	18.2
259.0	199232	126041	1661	1133.6	-136.1	18.2
259.5	199799	125972	1670	1133.5	-140.7	18.2
260.0	200366	125900	1679	1133.4	-145.3	18.3
260.5	200933	125827	1688	1133.2	-150.0	18.3
261.0	201499	125750	1697	1133.1	-154.6	18.3
261.5	202066	125672	1706	1133.0	-159.2	18.4
262.0	202632	125591	1716	1132.8	-163.9	18.4
262.5	203198	125508	1725	1132.7	-168.5	18.4
263.0	203765	125423	1734	1132.6	-173.1	18.5
263.5	204331	125335	1743	1132.4	-177.7	18.5
264.0	204897	125245	1753	1132.3	-182.4	18.6
264.5	205463	125153	1762	1132.1	-187.0	18.6
265.0	206029	125058	1771	1132.0	-191.6	18.6
265.5	206595	124961	1780	1131.9	-196.3	18.7
266.0	207161	124862	1790	1131.7	-200.9	18.7
266.5	207727	124760	1799	1131.6	-205.5	18.7
267.0	208293	124656	1809	1131.5	-210.2	18.8
267.5	208858	124550	1818	1131.3	-214.8	18.8
268.0	209424	124441	1827	1131.2	-219.4	18.8
268.5	209990	124330	1837	1131.0	-224.0	18.9
269.0	210555	124217	1846	1130.9	-228.7	18.9
269.5	211120	124102	1856	1130.8	-233.3	19.0
270.0	211686	123984	1865	1130.6	-237.9	19.0
270.5	212251	123864	1875	1130.5	-242.6	19.0
271.0	212816	123741	1884	1130.3	-247.2	19.1
271.5	213381	123617	1894	1130.2	-251.8	19.1
272.0	213946	123490	1903	1130.1	-256.5	19.1
272.5	214511	123360	1913	1129.9	-261.1	19.2
273.0	215076	123228	1922	1129.8	-265.7	19.2
273.5	215641	123094	1932	1129.7	-270.4	19.2
274.0	216206	122958	1942	1129.5	-275.0	19.3
274.5	216771	122819	1951	1129.4	-279.6	19.3
275.0	217335	122678	1961	1129.2	-284.3	19.3
275.5	217900	122535	1971	1129.1	-288.9	19.4

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
276.0	218465	122390	1980	1129.0	-293.5	19.4
276.5	219029	122242	1990	1128.8	-298.2	19.4
277.0	219593	122091	2000	1128.7	-302.8	19.5
277.5	220158	121939	2010	1128.5	-307.4	19.5
278.0	220722	121784	2019	1128.4	-312.1	19.5
278.5	221286	121627	2029	1128.3	-316.7	19.6
279.0	221850	121467	2039	1128.1	-321.3	19.6
279.5	222414	121305	2049	1128.0	-326.0	19.7
280.0	222978	121141	2059	1127.8	-330.6	19.7
280.5	223542	120975	2068	1127.7	-335.2	19.7
281.0	224106	120806	2078	1127.5	-339.9	19.8
281.5	224669	120635	2088	1127.4	-344.5	19.8
282.0	225233	120462	2098	1127.3	-349.1	19.8
282.5	225797	120286	2108	1127.1	-353.8	19.9
283.0	226360	120108	2118	1127.0	-358.4	19.9
283.5	226924	119927	2128	1126.8	-363.1	19.9
284.0	227487	119745	2138	1126.7	-367.7	20.0
284.5	228050	119560	2148	1126.6	-372.3	20.0
285.0	228614	119372	2158	1126.4	-377.0	20.0
285.5	229177	119183	2168	1126.3	-381.6	20.1
286.0	229740	118991	2178	1126.1	-386.2	20.1
286.5	230303	118796	2188	1126.0	-390.9	20.1
287.0	230866	118600	2198	1125.8	-395.5	20.2
287.5	231429	118401	2208	1125.7	-400.1	20.2
288.0	231992	118200	2218	1125.6	-404.8	20.2
288.5	232554	117996	2228	1125.4	-409.4	20.3
289.0	233117	117790	2239	1125.3	-414.1	20.3
289.5	233680	117582	2249	1125.1	-418.7	20.3
290.0	234242	117372	2259	1125.0	-423.3	20.4
290.5	234804	117159	2269	1124.8	-428.0	20.4
291.0	235367	116944	2279	1124.7	-432.6	20.4
291.5	235929	116726	2289	1124.5	-437.3	20.5
292.0	236491	116506	2300	1124.4	-441.9	20.5
292.5	237054	116284	2310	1124.3	-446.5	20.5
293.0	237616	116060	2320	1124.1	-451.2	20.6
293.5	238178	115833	2330	1124.0	-455.8	20.6
294.0	238740	115604	2341	1123.8	-460.5	20.6
294.5	239301	115372	2351	1123.7	-465.1	20.7
295.0	239863	115139	2361	1123.5	-469.8	20.7
295.5	240425	114903	2372	1123.4	-474.4	20.7

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
296.0	240987	114664	2382	1123.2	-479.0	20.8
296.5	241548	114424	2393	1123.1	-483.7	20.8
297.0	242110	114181	2403	1123.0	-488.3	20.8
297.5	242671	113935	2413	1122.8	-493.0	20.8
298.0	243233	113688	2424	1122.7	-497.6	20.9
298.5	243794	113438	2434	1122.5	-502.3	20.9
299.0	244355	113185	2445	1122.4	-506.9	20.9
299.5	244916	112931	2455	1122.2	-511.6	21.0
300.0	245477	112674	2466	1122.1	-516.2	21.0
300.5	246038	112415	2476	1121.9	-520.8	21.0
301.0	246599	112153	2487	1121.8	-525.5	21.1
301.5	247160	111889	2497	1121.6	-530.1	21.1
302.0	247721	111623	2508	1121.5	-534.8	21.1
302.5	248282	111354	2518	1121.3	-539.4	21.2
303.0	248842	111083	2529	1121.2	-544.1	21.2
303.5	249403	110810	2540	1121.1	-548.7	21.2
304.0	249963	110535	2550	1120.9	-553.4	21.3
304.5	250524	110257	2561	1120.8	-558.0	21.3
305.0	251084	109977	2572	1120.6	-562.7	21.3
305.5	251644	109694	2582	1120.5	-567.3	21.4
306.0	252204	109409	2593	1120.3	-572.0	21.4
306.5	252765	109122	2604	1120.2	-576.6	21.4
307.0	253325	108833	2614	1120.0	-581.3	21.4
307.5	253885	108541	2625	1119.9	-585.9	21.5
308.0	254444	108247	2636	1119.7	-590.6	21.5
308.5	255004	107950	2647	1119.6	-595.2	21.5
309.0	255564	107652	2657	1119.4	-599.9	21.6
309.5	256124	107350	2668	1119.3	-604.5	21.6
310.0	256683	107047	2679	1119.1	-609.2	21.6
310.5	257243	106741	2690	1119.0	-613.8	21.7
311.0	257802	106433	2701	1118.8	-618.5	21.7
311.5	258362	106123	2711	1118.7	-623.2	21.7
312.0	258921	105810	2722	1118.5	-627.8	21.8
312.5	259480	105495	2733	1118.4	-632.5	21.8
313.0	260039	105177	2744	1118.2	-637.1	21.8
313.5	260598	104858	2755	1118.1	-641.8	21.8
314.0	261157	104536	2766	1117.9	-646.4	21.9
314.5	261716	104211	2777	1117.8	-651.1	21.9
315.0	262275	103885	2788	1117.6	-655.7	21.9
315.5	262834	103556	2799	1117.5	-660.4	22.0

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
316.0	263393	103224	2810	1117.3	-665.1	22.0
316.5	263951	102891	2821	1117.2	-669.7	22.0
317.0	264510	102555	2832	1117.0	-674.4	22.0
317.5	265068	102216	2843	1116.9	-679.0	22.1
318.0	265627	101875	2854	1116.7	-683.7	22.1
318.5	266185	101533	2865	1116.6	-688.4	22.1
319.0	266743	101187	2876	1116.4	-693.0	22.2
319.5	267301	100839	2887	1116.3	-697.7	22.2
320.0	267859	100489	2898	1116.1	-702.3	22.2
320.5	268417	100137	2909	1116.0	-707.0	22.3
321.0	268975	99782	2920	1115.8	-711.7	22.3
321.5	269533	99425	2932	1115.7	-716.3	22.3
322.0	270091	99066	2943	1115.5	-721.0	22.3
322.5	270649	98704	2954	1115.4	-725.7	22.4
323.0	271206	98340	2965	1115.2	-730.3	22.4
323.5	271764	97974	2976	1115.0	-735.0	22.4
324.0	272321	97605	2988	1114.9	-739.7	22.5
324.5	272879	97234	2999	1114.7	-744.3	22.5
325.0	273436	96861	3010	1114.6	-749.0	22.5
325.5	273993	96485	3021	1114.4	-753.7	22.5
326.0	274550	96108	3033	1114.3	-758.3	22.6
326.5	275107	95727	3044	1114.1	-763.0	22.6
327.0	275665	95344	3055	1114.0	-767.7	22.6
327.5	276221	94959	3066	1113.8	-772.3	22.7
328.0	276778	94572	3078	1113.7	-777.0	22.7
328.5	277335	94182	3089	1113.5	-781.7	22.7
329.0	277892	93791	3101	1113.4	-786.3	22.7
329.5	278448	93396	3112	1113.2	-791.0	22.8
330.0	279005	92999	3123	1113.0	-795.7	22.8
330.5	279561	92600	3135	1112.9	-800.4	22.8
331.0	280118	92199	3146	1112.7	-805.0	22.8
331.5	280674	91795	3158	1112.6	-809.7	22.9
332.0	281230	91389	3169	1112.4	-814.4	22.9
332.5	281787	90981	3180	1112.3	-819.0	22.9
333.0	282343	90570	3192	1112.1	-823.7	23.0
333.5	282899	90157	3203	1112.0	-828.4	23.0
334.0	283455	89742	3215	1111.8	-833.1	23.0
334.5	284010	89324	3226	1111.6	-837.8	23.0
335.0	284566	88904	3238	1111.5	-842.4	23.1
335.5	285122	88482	3249	1111.3	-847.1	23.1

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TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
336.0	285678	88057	3261	1111.2	-851.8	23.1
336.5	286233	87630	3273	1111.0	-856.5	23.1
337.0	286789	87201	3284	1110.9	-861.1	23.2
337.5	287344	86769	3296	1110.7	-865.8	23.2
338.0	287899	86335	3307	1110.5	-870.5	23.2
338.5	288454	85898	3319	1110.4	-875.2	23.3
339.0	289010	85460	3331	1110.2	-879.9	23.3
339.5	289565	85018	3342	1110.1	-884.6	23.3
340.0	290120	84575	3354	1109.9	-889.2	23.3
340.5	290675	84129	3366	1109.8	-893.9	23.4
341.0	291229	83681	3377	1109.6	-898.6	23.4
341.5	291784	83231	3389	1109.4	-903.3	23.4
342.0	292339	82778	3401	1109.3	-908.0	23.4
342.5	292893	82323	3412	1109.1	-912.7	23.5
343.0	293448	81865	3424	1109.0	-917.4	23.5
343.5	294002	81405	3436	1108.8	-922.0	23.5
344.0	294557	80943	3448	1108.6	-926.7	23.5
344.5	295111	80478	3459	1108.5	-931.4	23.6
345.0	295665	80012	3471	1108.3	-936.1	23.6
345.5	296219	79542	3483	1108.2	-940.8	23.6
346.0	296773	79071	3495	1108.0	-945.5	23.6
346.5	297327	78597	3507	1107.8	-950.2	23.7
347.0	297881	78121	3519	1107.7	-954.9	23.7
347.5	298435	77642	3530	1107.5	-959.6	23.7
348.0	298989	77161	3542	1107.4	-964.3	23.7
348.5	299542	76678	3554	1107.2	-969.0	23.8
349.0	300096	76192	3566	1107.0	-973.6	23.8
349.5	300649	75704	3578	1106.9	-978.3	23.8
350.0	301203	75214	3590	1106.7	-983.0	23.8
350.5	301756	74721	3602	1106.6	-987.7	23.9
351.0	302309	74226	3614	1106.4	-992.4	23.9
351.5	302862	73729	3626	1106.2	-997.1	23.9
352.0	303415	73229	3638	1106.1	-1001.8	23.9
352.5	303968	72727	3650	1105.9	-1006.5	24.0
353.0	304521	72222	3662	1105.7	-1011.2	24.0
353.5	305074	71716	3674	1105.6	-1015.9	24.0
354.0	305627	71206	3686	1105.4	-1020.6	24.0
354.5	306180	70695	3698	1105.3	-1025.3	24.1
355.0	306732	70181	3710	1105.1	-1030.0	24.1
355.5	307285	69665	3722	1104.9	-1034.7	24.1

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
356.0	307837	69146	3734	1104.8	-1039.4	24.1
356.5	308389	68625	3746	1104.6	-1044.1	24.2
357.0	308942	68102	3758	1104.4	-1048.8	24.2
357.5	309494	67577	3770	1104.3	-1053.5	24.2
358.0	310046	67049	3782	1104.1	-1058.3	24.2
358.5	310598	66518	3794	1103.9	-1063.0	24.3
359.0	311150	65986	3806	1103.8	-1067.7	24.3
359.5	311702	65451	3819	1103.6	-1072.4	24.3
360.0	312253	64913	3831	1103.4	-1077.1	24.3
360.5	312805	64374	3843	1103.3	-1081.8	24.4
361.0	313357	63832	3855	1103.1	-1086.5	24.4
361.5	313908	63287	3867	1102.9	-1091.2	24.4
362.0	314460	62740	3880	1102.8	-1095.9	24.4
362.5	315011	62191	3892	1102.6	-1100.6	24.4
363.0	315562	61640	3904	1102.4	-1105.3	24.5
363.5	316113	61086	3916	1102.3	-1110.1	24.5
364.0	316664	60530	3929	1102.1	-1114.8	24.5
364.5	317215	59971	3941	1101.9	-1119.5	24.5
365.0	317766	59410	3953	1101.7	-1124.2	24.6
365.5	318317	58847	3965	1101.6	-1128.9	24.6
366.0	318868	58281	3978	1101.4	-1133.6	24.6
366.5	319418	57713	3990	1101.2	-1138.3	24.6
367.0	319969	57143	4002	1101.1	-1143.0	24.7
367.5	320519	56570	4015	1100.9	-1147.8	24.7
368.0	321070	55995	4027	1100.7	-1152.5	24.7
368.5	321620	55418	4039	1100.5	-1157.2	24.7
369.0	322170	54838	4052	1100.3	-1161.9	24.7
369.5	322720	54256	4064	1100.2	-1166.6	24.8
370.0	323271	53671	4076	1100.0	-1171.3	24.8
370.5	323820	53085	4089	1099.8	-1176.0	24.8
371.0	324370	52495	4101	1099.6	-1180.8	24.8
371.5	324920	51904	4114	1099.5	-1185.5	24.9
372.0	325470	51310	4126	1099.3	-1190.2	24.9
372.5	326019	50714	4139	1099.1	-1194.9	24.9
373.0	326569	50115	4151	1098.9	-1199.6	24.9
373.5	327118	49514	4163	1098.7	-1204.3	24.9
374.0	327668	48911	4176	1098.5	-1209.0	25.0
374.5	328217	48305	4188	1098.3	-1213.8	25.0
375.0	328766	47697	4201	1098.1	-1218.5	25.0
375.5	329315	47086	4213	1098.0	-1223.2	25.0

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TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
376.0	329864	46474	4226	1097.8	-1227.9	25.0
376.5	330413	45858	4238	1097.6	-1232.6	25.1
377.0	330961	45241	4251	1097.4	-1237.3	25.1
377.5	331510	44621	4264	1097.2	-1242.0	25.1
378.0	332058	43999	4276	1097.0	-1246.7	25.1
378.5	332607	43375	4289	1096.8	-1251.4	25.1
379.0	333155	42748	4301	1096.5	-1256.1	25.2
379.5	333703	42118	4314	1096.3	-1260.8	25.2
380.0	334252	41487	4326	1096.1	-1265.5	25.2
380.5	334799	40853	4339	1095.9	-1270.2	25.2
381.0	335347	40217	4352	1095.7	-1274.9	25.2
381.5	335895	39578	4364	1095.5	-1279.6	25.3
382.0	336443	38937	4377	1095.2	-1284.2	25.3
382.5	336990	38294	4390	1095.0	-1288.9	25.3
383.0	337538	37648	4402	1094.8	-1293.6	25.3
383.5	338085	37000	4415.	1094.5	-1298.2	25.3
384.0	338632	36350	4428	1094.2	-1302.9	25.4
384.5	339179	35697	4440	1094.0	-1307.5	25.4
385.0	339726	35042	4453	1093.7	-1312.2	25.4
385.5	340273	34385	4466	1093.4	-1316.8	25.4
386.0	340820	33725	4478	1093.2	-1321.4	25.4
386.5	341366	33064	4491	1092.9	-1326.0	25.4
387.0	341912	32399	4504	1092.5	-1330.6	25.5
387.5	342459	31733	4517	1092.2	-1335.2	25.5
388.0	343005	31064	4529	1091.9	-1339.8	25.5
388.5	343551	30393	4542	1091.5	-1344.3	25.5
389.0	344096	29720	4555	1091.2	-1348.8	25.5
389.5	344642	29044	4568	1090.8	-1353.3	25.5
390.0	345187	28367	4580	1090.4	-1357.8	25.6
390.5	345732	27687	4593	1089.9	-1362.2	25.6
391.0	346277	27004	4606	1089.5	-1366.6	25.6
391.5	346821	26320	4619	1089.0	-1371.0	25.6
392.0	347366	25634	4631	1088.4	-1375.3	25.6
392.5	347910	24945	4644	1087.9	-1379.6	25.6
393.0	348454	24254	4657	1087.3	-1383.8	25.6
393.5	348997	23561	4670	1086.6	-1388.0	25.6
394.0	349540	22866	4683	1085.9	-1392.1	25.6
394.5	350083	22169	4696	1085.1	-1396.1	25.6
395.0	350625	21470	4708	1084.3	-1400.0	25.6
395.5	351167	20769	4721	1083.4	-1403.9	25.6

TABLE IV

TIME SEC	EARTH-FIXED-POSITION			EARTH-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
396.0	351709	20066	4734	1082.4	-1407.6	25.6
396.5	352250	19361	4747	1081.4	-1411.2	25.6
397.0	352790	18655	4760	1080.2	-1414.7	25.6
397.5	353330	17947	4772	1078.9	-1418.1	25.6
LOSS OF TELEMETRY						
397.796	353653	17521	4780	1078.1	-1420.0	25.6

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
FIRST MOTION						
0.400	-0	-0	-0	402.8	0.0	-71.0
0.5	40	-0	-7	402.8	0.4	-71.0
LIFT OFF SIGNAL						
0.580	72	-0	-13	402.8	0.6	-71.0
1.0	242	1	-43	402.8	2.1	-71.0
1.5	443	2	-78	402.8	3.9	-71.0
2.0	644	4	-114	402.8	5.8	-71.0
2.5	846	8	-149	402.8	7.7	-71.0
3.0	1047	12	-185	402.8	9.6	-71.0
3.5	1249	17	-220	402.8	11.5	-71.0
4.0	1450	24	-256	402.7	13.5	-71.0
4.5	1651	31	-291	402.7	15.5	-71.0
5.0	1853	39	-327	402.6	17.5	-71.0
5.5	2054	48	-362	402.6	19.6	-71.0
6.0	2255	59	-398	402.5	21.7	-71.0
6.5	2457	70	-433	402.5	23.8	-71.0
7.0	2658	83	-469	402.4	26.0	-71.0
7.5	2859	96	-504	402.4	28.1	-70.9
8.0	3060	111	-540	402.4	30.3	-70.9
8.5	3261	127	-575	402.3	32.6	-70.9
9.0	3463	143	-611	402.3	34.8	-70.9
9.5	3664	161	-646	402.3	37.1	-70.9
10.0	3865	180	-681	402.3	39.4	-70.9
10.5	4066	201	-717	402.4	41.7	-70.8
11.0	4267	222	-752	402.4	44.0	-70.8
11.5	4468	245	-788	402.4	46.4	-70.8
12.0	4670	269	-823	402.5	48.8	-70.8
12.5	4871	293	-858	402.6	51.2	-70.8
13.0	5072	320	-894	402.7	53.7	-70.8
13.5	5274	347	-929	402.9	56.1	-70.7
14.0	5475	376	-965	403.1	58.6	-70.7
14.5	5677	406	-1000	403.3	61.1	-70.7
15.0	5878	437	-1035	403.5	63.6	-70.7
15.5	6080	469	-1071	403.7	66.2	-70.7
16.0	6282	503	-1106	404.0	68.7	-70.7
16.5	6484	538	-1141	404.4	71.3	-70.7
17.0	6687	574	-1177	404.7	74.0	-70.7

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
17.5	6889	612	-1212	405.1	76.6	-70.7
18.0	7092	651	-1247	405.6	79.3	-70.7
18.5	7295	691	-1283	406.1	81.9	-70.7
19.0	7498	733	-1318	406.6	84.6	-70.7
19.5	7701	776	-1353	407.2	87.4	-70.7
20.0	7905	820	-1389	407.8	90.1	-70.7
20.5	8108	866	-1424	408.6	92.9	-70.7
21.0	8313	913	-1460	409.3	95.7	-70.8
21.5	8518	962	-1495	410.0	98.5	-70.8
22.0	8723	1012	-1530	410.8	101.4	-70.8
22.5	8929	1063	-1566	411.7	104.3	-70.9
23.0	9135	1116	-1601	412.5	107.3	-70.9
23.5	9341	1170	-1637	413.5	110.2	-71.0
24.0	9548	1226	-1672	414.4	113.2	-71.1
24.5	9756	1284	-1708	415.4	116.2	-71.1
25.0	9963	1343	-1743	416.5	119.2	-71.2
25.5	10172	1403	-1779	417.6	122.3	-71.3
26.0	10381	1465	-1815	418.8	125.3	-71.3
26.5	10591	1528	-1850	420.0	128.4	-71.4
27.0	10801	1593	-1886	421.3	131.5	-71.5
27.5	11012	1660	-1922	422.7	134.6	-71.5
28.0	11224	1728	-1958	424.1	137.7	-71.6
28.5	11436	1797	-1993	425.6	140.9	-71.7
29.0	11649	1869	-2029	427.1	144.1	-71.8
29.5	11863	1941	-2065	428.6	147.3	-71.9
30.0	12078	2016	-2101	430.3	150.5	-72.0
30.5	12294	2092	-2137	431.9	153.7	-72.1
31.0	12510	2170	-2173	433.7	157.0	-72.2
31.5	12727	2249	-2209	435.4	160.2	-72.4
32.0	12945	2330	-2246	437.2	163.5	-72.5
32.5	13164	2412	-2282	439.1	166.8	-72.7
33.0	13384	2497	-2318	441.0	170.1	-72.9
33.5	13605	2582	-2355	443.0	173.4	-73.0
34.0	13827	2670	-2391	445.0	176.8	-73.2
34.5	14050	2759	-2428	447.0	180.1	-73.3
35.0	14274	2850	-2465	449.0	183.5	-73.4
35.5	14499	2943	-2501	451.1	187.0	-73.5
36.0	14726	3037	-2538	453.2	190.4	-73.5
36.5	14953	3133	-2575	455.3	193.9	-73.6
37.0	15181	3231	-2612	457.4	197.5	-73.6

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
37.5	15410	3331	-2649	459.5	201.1	-73.5
38.0	15640	3432	-2685	461.6	204.7	-73.5
38.5	15872	3535	-2722	463.7	208.3	-73.6
39.0	16104	3640	-2759	465.8	212.0	-73.6
39.5	16337	3747	-2796	468.0	215.7	-73.7
40.0	16572	3856	-2833	470.2	219.4	-73.8
40.5	16808	3967	-2869	472.4	223.2	-73.9
41.0	17044	4079	-2906	474.7	227.0	-74.0
41.5	17282	4194	-2943	476.9	230.8	-74.1
42.0	17521	4310	-2980	479.2	234.7	-74.2
42.5	17762	4428	-3018	481.6	238.5	-74.3
43.0	18003	4549	-3055	483.9	242.4	-74.4
43.5	18246	4671	-3092	486.3	246.3	-74.5
44.0	18489	4795	-3129	488.7	250.2	-74.6
44.5	18734	4921	-3167	491.1	254.1	-74.7
45.0	18980	5049	-3204	493.6	258.0	-74.8
45.5	19228	5179	-3241	496.1	262.0	-75.0
46.0	19477	5311	-3279	498.6	265.9	-75.1
46.5	19726	5445	-3316	501.2	269.9	-75.2
47.0	19978	5581	-3354	503.8	273.9	-75.2
47.5	20230	5719	-3392	506.4	278.0	-75.3
48.0	20484	5859	-3429	509.0	282.0	-75.3
48.5	20739	6001	-3467	511.7	286.0	-75.3
49.0	20996	6145	-3505	514.4	290.0	-75.3
49.5	21254	6291	-3542	517.1	294.0	-75.3
50.0	21513	6439	-3580	519.9	298.0	-75.3
MACH ONE						
50.146	21589	6483	-3591	520.7	299.2	-75.3
50.5	21774	6589	-3618	522.7	302.0	-75.3
51.0	22036	6741	-3655	525.5	305.9	-75.3
51.5	22299	6895	-3693	528.4	309.7	-75.4
52.0	22564	7051	-3731	531.4	313.6	-75.5
52.5	22831	7208	-3768	534.4	317.4	-75.5
53.0	23098	7368	-3806	537.5	321.2	-75.6
53.5	23368	7530	-3844	540.7	325.0	-75.7
54.0	23639	7693	-3882	543.9	328.8	-75.7
54.5	23912	7858	-3920	547.1	332.7	-75.8
55.0	24186	8026	-3958	550.3	336.5	-75.8
55.5	24462	8195	-3996	553.6	340.4	-75.8

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
56.0	24740	8366	-4034	557.0	344.4	-75.8
56.5	25019	8539	-4071	560.4	348.3	-75.6
57.0	25300	8714	-4109	563.9	352.4	-75.5
57.5	25583	8892	-4147	567.4	356.4	-75.3
58.0	25868	9071	-4185	571.0	360.6	-75.2
58.5	26154	9252	-4222	574.7	364.7	-75.1
59.0	26442	9436	-4260	578.4	368.9	-75.0
59.5	26733	9621	-4297	582.2	373.2	-75.1
60.0	27025	9809	-4335	586.0	377.5	-75.2
60.5	27319	9999	-4372	589.9	381.9	-75.5
61.0	27615	10191	-4410	593.8	386.3	-75.8
61.5	27913	10385	-4448	597.8	390.7	-76.1
62.0	28212	10581	-4486	601.9	395.3	-76.5
MAXIMUM DYNAMIC PRESSURE						
62.100	28273	10621	-4494	602.7	396.2	-76.6
62.5	28514	10780	-4524	606.0	399.8	-76.9
63.0	28818	10981	-4563	610.2	404.4	-77.1
63.5	29125	11185	-4602	614.5	409.1	-77.2
64.0	29433	11390	-4640	618.8	413.9	-77.2
64.5	29743	11599	-4679	623.1	418.7	-77.0
65.0	30056	11809	-4718	627.4	423.6	-76.8
65.5	30371	12022	-4756	631.8	428.6	-76.5
66.0	30688	12238	-4794	636.2	433.7	-76.2
66.5	31007	12456	-4832	640.6	438.8	-76.0
67.0	31329	12676	-4870	645.1	444.0	-75.8
67.5	31652	12900	-4907	649.7	449.2	-75.8
68.0	31978	13126	-4945	654.4	454.5	75.8
68.5	32307	13354	-4983	659.2	459.8	-75.8
69.0	32637	13586	-5021	664.1	465.2	-75.9
69.5	32971	13819	-5059	669.0	470.7	-76.0
70.0	33306	14056	-5097	674.1	476.2	-76.0
70.5	33645	14296	-5135	679.2	481.7	-76.0
71.0	33986	14538	-5173	684.5	487.3	-76.0
71.5	34329	14783	-5211	689.8	493.0	-75.9
72.0	34676	15031	-5249	695.2	498.7	-75.8
72.5	35025	15282	-5287	700.7	504.5	-75.6
73.0	35376	15535	-5325	706.3	510.3	-75.6
73.5	35731	15792	-5362	712.0	516.2	-75.5
74.0	36088	16052	-5400	717.8	522.1	-75.5

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
74.5	36448	16314	-5438	723.8	528.0	-75.5
75.0	36812	16580	-5476	729.8	534.0	-75.5
75.5	37178	16848	-5514	736.0	540.1	-75.5
76.0	37548	17120	-5551	742.3	546.2	-75.5
76.5	37921	17394	-5589	748.7	552.3	-75.5
77.0	38297	17672	-5627	755.2	558.5	-75.4
77.5	38676	17953	-5664	761.7	564.7	-75.4
78.0	39058	18237	-5702	768.4	571.0	-75.3
78.5	39444	18524	-5740	775.2	577.3	-75.2
79.0	39834	18814	-5777	782.1	583.7	-75.2
79.5	40226	19108	-5815	789.2	590.0	-75.2
80.0	40623	19404	-5852	796.4	596.4	-75.1
80.5	41023	19704	-5890	803.8	602.9	-75.1
81.0	41427	20007	-5928	811.2	609.3	-75.1
81.5	41834	20313	-5965	818.9	615.8	-75.1
82.0	42245	20623	-6003	826.6	622.3	-75.1
82.5	42661	20936	-6040	834.5	628.9	-75.1
83.0	43080	21252	-6078	842.4	635.5	-75.1
83.5	43503	21571	-6115	850.4	642.2	-75.1
84.0	43930	21894	-6153	858.6	648.9	-75.1
84.5	44362	22220	-6191	866.8	655.6	-75.1
85.0	44797	22550	-6228	875.2	662.4	-75.2
85.5	45237	22882	-6266	883.6	669.3	-75.2
86.0	45681	23219	-6303	892.2	676.2	-75.2
86.5	46129	23559	-6341	900.9	683.1	-75.2
87.0	46582	23902	-6378	909.7	690.0	-75.2
87.5	47039	24249	-6416	918.6	697.0	-75.2
88.0	47500	24599	-6454	927.6	704.1	-75.2
88.5	47967	24953	-6491	936.7	711.2	-75.2
89.0	48437	25310	-6529	945.9	718.4	-75.2
89.5	48912	25671	-6566	955.2	725.6	-75.2
90.0	49392	26036	-6604	964.6	732.8	-75.3
90.5	49877	26404	-6642	974.1	740.1	-75.3
91.0	50367	26776	-6679	983.7	747.5	-75.3
91.5	50861	27151	-6717	993.4	754.9	-75.3
92.0	51360	27531	-6755	1003.2	762.4	-75.3
92.5	51864	27914	-6792	1013.0	770.0	-75.3
93.0	52373	28301	-6830	1022.9	777.6	-75.4
93.5	52887	28691	-6868	1032.9	785.3	-75.4
94.0	53406	29086	-6905	1043.1	793.0	-75.4

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
94.5	53930	29484	-6943	1053.3	800.8	-75.4
95.0	54459	29887	-6981	1063.6	808.6	-75.4
95.5	54994	30293	-7019	1074.3	816.3	-75.4
96.0	55533	30703	-7056	1085.0	824.3	-75.4
96.5	56078	31117	-7094	1095.7	832.2	-75.4
97.0	56629	31535	-7132	1106.4	840.2	-75.4
97.5	57185	31958	-7169	1117.3	848.3	-75.4
98.0	57746	32384	-7207	1128.3	856.3	-75.4
98.5	58313	32814	-7245	1139.2	864.5	-75.4
99.0	58885	33248	-7282	1150.5	872.6	-75.4
99.5	59464	33687	-7320	1161.8	880.9	-75.4
100.0	60048	34129	-7358	1173.3	891.3	-75.5
100.5	60638	34575	-7395	1185.0	897.8	-75.5
ENGINE N <small>O</small> . 5 CUTOFF SIGNAL						
100.620	60796	34701	-7404	1188.2	900.2	-75.4
BEGIN ENGINE N <small>O</small> . 5 THRUST DECAY						
100.750	60935	34800	-7414	1190.7	902.0	-75.4
101.0	61235	35023	-7434	1196.5	905.8	-75.5
101.5	61836	35477	-7472	1206.6	912.5	-75.5
102.0	62442	35936	-7509	1217.0	919.4	-75.6
END ENGINE N <small>O</small> . 5 THRUST DECAY						
102.430	62967	36332	-7542	1226.0	925.3	-75.6
102.5	63053	36397	-7547	1227.5	926.2	-75.6
103.0	63669	36862	-7585	1238.0	933.1	-75.6
103.5	64291	37330	-7623	1248.6	939.9	-75.6
104.0	64918	37801	-7660	1259.4	946.9	-75.6
104.5	65550	38276	-7698	1270.3	953.9	-75.6
105.0	66188	38755	-7736	1281.2	960.8	-75.6
105.5	66831	39237	-7773	1292.1	968.0	-75.6
106.0	67480	39723	-7811	1303.0	975.1	-75.6
106.5	68134	40212	-7849	1314.2	982.4	-75.6
107.0	68794	40705	-7886	1325.2	989.6	-75.6
107.5	69460	41201	-7924	1336.4	997.0	-75.6
108.0	70131	41702	-7962	1347.7	1004.5	-75.6
108.5	70807	42206	-8000	1359.0	1012.0	-75.6
109.0	71490	42714	-8037	1370.3	1019.5	-75.6
109.5	72178	43225	-8075	1381.7	1027.3	-75.6

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
110.0	72872	43741	-8113	1393.3	1035.0	-75.6
110.5	73571	44260	-8151	1404.9	1042.8	-75.6
111.0	74277	44783	-8188	1416.5	1050.8	-75.6
111.5	74988	45311	-8226	1428.2	1058.8	-75.6
112.0	75705	45842	-8263	1440.0	1066.8	-75.6
112.5	76428	46377	-8301	1451.7	1074.9	-75.6
113.0	77157	46917	-8339	1463.5	1083.2	-75.6
INBOARD ENGINE CUTOFF SIGNAL						
113.490	77866	47438	-8376	1475.0	1091.1	-75.6
113.5	77892	47460	-8377	1475.4	1091.3	-75.6
BEGIN INBOARD ENGINE THRUST DECAY						
113.680	78158	47657	-8390	1479.6	1094.2	-75.6
114.0	78632	48007	-8414	1485.1	1097.2	-75.6
114.5	79376	48556	-8452	1491.6	1099.7	-75.6
115.0	80124	49107	-8490	1498.7	1102.4	-75.7
115.5	80875	49659	-8528	1509.1	1108.4	-75.7
END INBOARD ENGINE THRUST DECAY						
115.540	80935	49703	-8531	1506.1	1105.6	-75.7
116.0	81630	50212	-8565	1512.4	1108.0	-75.7
116.5	82387	50766	-8603	1519.3	1110.7	-75.7
117.0	83149	51322	-8641	1526.1	1113.5	-75.7
117.5	83913	51880	-8679	1532.9	1116.2	-75.7
118.0	84682	52438	-8717	1539.7	1119.0	-75.8
118.5	85453	52998	-8755	1546.6	1121.7	-75.8
119.0	86228	53500	-8793	1553.4	1124.5	-75.8
119.5	87006	54123	-8830	1560.4	1127.3	-75.8
120.0	87788	54687	-8868	1567.4	1130.2	-75.8
120.5	88574	55253	-8906	1574.3	1133.0	-75.8
121.0	89363	55820	-8944	1581.3	1135.6	-75.8
BEGIN OUTBOARD ENGINE THRUST DECAY						
121.100	89521	55934	-8951	1582.7	1136.1	-75.8
OUTBOARD ENGINE CUTOFF SIGNAL						
121.120	89553	55956	-8953	1582.8	1136.0	-75.8
MAXIMUM EARTH-FIXED VELOCITY						
121.500	90155	56388	-8982	1585.8	1134.6	-75.8

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
122.0	90947	56955	-9020	1586.4	1131.7	-75.8
122.5	91741	57520	-9058	1586.9	1127.3	-75.8
123.0	92534	58082	-9095	1586.9	1122.5	-75.8
END OUTBOARD ENGINE THRUST DECAY						
123.350	93089	58475	-9122	1586.9	1119.2	-75.8
123.5	93327	58643	-9133	1586.8	1117.8	-75.8
124.0	94120	59201	-9172	1586.7	1113.0	-75.8
124.5	94913	59756	-9210	1586.6	1108.2	-75.8
125.0	95708	60312	-9248	1586.5	1103.4	-75.8
RETRO ROCKET IGNITION						
125.460	96439	60819	-9283	1586.4	1099.1	-76.0
125.5	96502	60864	-9287	1586.4	1098.6	-76.0
126.0	97296	61412	-9324	1585.0	1092.1	-76.0
126.5	98089	61956	-9362	1583.5	1085.8	-75.9
127.0	98880	62497	-9399	1582.1	1079.4	-75.9
127.5	99671	63034	-9438	1581.2	1073.6	-75.7
RETRO ROCKET BURNOUT						
127.600	99829	63141	-9445	1581.1	1072.6	-75.7
128.0	100459	63571	-9476	1581.0	1068.7	-75.7
128.5	101250	64103	-9514	1580.8	1063.6	-75.7
129.0	102041	64633	-9551	1580.6	1058.7	-75.7
129.5	102831	65161	-9589	1580.5	1053.9	-75.7
130.0	103621	65687	-9626	1580.3	1049.1	-75.7
130.5	104409	66211	-9664	1580.2	1044.3	-75.7
131.0	105199	66732	-9702	1580.1	1039.5	-75.7
131.5	105989	67251	-9739	1580.0	1034.7	-75.7
132.0	106778	67768	-9777	1579.9	1029.9	-75.7
132.5	107568	68281	-9815	1579.7	1025.1	-75.7
133.0	108358	68793	-9853	1579.6	1020.3	-75.7
133.5	109148	69301	-9891	1579.6	1015.5	-75.6
134.0	109937	69808	-9929	1579.5	1010.7	-75.5
134.5	110727	70312	-9967	1579.4	1005.9	-75.4
135.0	111517	70814	-10004	1579.4	1001.1	-75.3
135.5	112306	71313	-10042	1579.2	996.3	-75.3
136.0	113095	71810	-10080	1579.1	991.5	-75.4
136.5	113885	72305	-10117	1579.0	986.7	-75.5
137.0	114674	72797	-10155	1578.9	981.9	-75.6

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
137.5	115463	73287	-10193	1578.8	977.1	-75.6
138.0	116253	73774	-10231	1578.7	972.3	-75.6
138.5	117042	74259	-10269	1578.6	967.6	-75.6
139.0	117832	74741	-10307	1578.4	962.8	-75.7
139.5	118621	75222	-10345	1578.3	958.1	-75.7
140.0	119410	75700	-10382	1578.3	953.2	-75.6
140.5	120199	76175	-10420	1578.3	948.3	-75.5
141.0	120988	76648	-10458	1578.2	943.5	-75.6
141.5	121777	77119	-10496	1578.1	938.8	-75.7
142.0	122566	77587	-10534	1577.9	934.1	-75.8
142.5	123355	78053	-10572	1577.7	929.4	-75.8
143.0	124144	78516	-10610	1577.6	924.6	-75.8
143.5	124932	78977	-10648	1577.6	919.7	-75.8
144.0	125721	79436	-10685	1577.5	914.9	-75.7
144.5	126510	79892	-10723	1577.5	910.1	-75.7
145.0	127299	80346	-10761	1577.3	905.3	-75.7
145.5	128087	80798	-10799	1577.2	900.6	-75.7
146.0	128876	81247	-10837	1577.1	895.8	-75.6
146.5	129664	81693	-10875	1577.1	891.0	-75.6
147.0	130453	82138	-10913	1577.0	886.2	-75.5
147.5	131241	82580	-10950	1576.9	881.5	-75.5
148.0	132030	83019	-10988	1576.8	876.7	-75.5
148.5	132818	83456	-11026	1576.7	871.8	-75.6
149.0	133606	83891	-11064	1576.6	867.0	-75.6
149.5	134395	84323	-11102	1576.5	862.2	-75.6
150.0	135183	84753	-11139	1576.5	857.5	-75.5
150.5	135971	85181	-11177	1576.4	852.7	-75.5
151.0	136759	85606	-11215	1576.2	847.9	-75.5
151.5	137547	86029	-11253	1576.1	843.1	-75.5
152.0	138335	86449	-11291	1576.0	838.3	-75.5
152.5	139123	8687	-11328	1575.9	833.6	-75.5
153.0	139911	87283	-11366	1575.8	828.8	-75.5
153.5	140699	87696	-11404	1575.7	824.0	-75.5
154.0	141487	88107	-11442	1575.6	819.2	-75.5
154.5	142275	88515	-11479	1575.5	814.5	-75.5
155.0	143063	88921	-11517	1575.4	809.7	-75.5
155.5	143850	89325	-11555	1575.3	804.9	-75.5
156.0	144638	89726	-11593	1575.2	800.2	-75.5
156.5	145426	90125	-11630	1575.1	795.4	-75.5
157.0	146213	90522	-11668	1575.0	790.6	-75.5

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
157.5	147000	90916	-11706	1574.9	785.9	-75.5
158.0	147788	91307	-11744	1574.8	781.1	-75.5
158.5	148575	91697	-11781	1574.6	776.3	-75.5
159.0	149363	92084	-11819	1574.5	771.6	-75.5
159.5	150150	92468	-11857	1574.4	766.8	-75.5
160.0	150937	92850	-11895	1574.3	762.0	-75.5
160.5	151724	93230	-11933	1574.2	757.3	-75.5
161.0	152511	93608	-11970	1574.1	752.5	-75.5
161.5	153298	93983	-12008	1574.0	747.7	-75.5
162.0	154085	94355	-12046	1573.9	743.0	-75.5
162.5	154872	94726	-12083	1573.7	738.2	-75.5
163.0	155659	95094	-12121	1573.6	733.4	-75.5
163.5	156446	95459	-12159	1573.5	728.7	-75.5
164.0	157232	95822	-12197	1573.4	723.9	-75.5
164.5	158019	96183	-12234	1573.3	719.2	-75.5
165.0	158806	96542	-12272	1573.2	714.4	-75.5
165.5	159592	96897	-12310	1573.0	709.6	-75.5
166.0	160379	97251	-12348	1572.9	704.9	-75.5
166.5	161165	97602	-12385	1572.8	700.1	-75.5
167.0	161951	97951	-12423	1572.7	695.4	-75.5
167.5	162738	98298	-12461	1572.6	690.6	-75.5
168.0	163524	98642	-12499	1572.4	685.9	-75.5
168.5	164310	98983	-12536	1572.3	681.1	-75.5
169.0	165096	99323	-12574	1572.2	676.3	-75.5
169.5	165882	99660	-12612	1572.1	671.6	-75.5
170.0	166668	99994	-12650	1572.0	666.8	-75.5
170.5	167454	100327	-12687	1571.8	662.1	-75.5
171.0	168240	100657	-12725	1571.7	657.3	-75.5
171.5	169026	100984	-12763	1571.6	652.6	-75.5
172.0	169812	101309	-12800	1571.5	647.8	-75.5
172.5	170597	101632	-12838	1571.3	643.1	-75.5
173.0	171383	101952	-12876	1571.2	638.3	-75.5
173.5	172169	102270	-12914	1571.1	633.6	-75.5
174.0	172954	102586	-12951	1570.9	628.8	-75.5
174.5	173740	102899	-12989	1570.8	624.1	-75.4
175.0	174525	103210	-13027	1570.7	619.3	-75.4
175.5	175310	103518	-13064	1570.6	614.6	-75.4
176.0	176096	103824	-13102	1570.4	609.8	-75.4
176.5	176881	104128	-13140	1570.3	605.1	-75.4
177.0	177666	104429	-13178	1570.2	600.3	-75.4

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
177.5	178451	104728	-13215	1570.0	595.6	-75.4
178.0	179236	105025	-13253	1569.9	590.8	-75.4
178.5	180021	105319	-13291	1569.8	586.1	-75.4
179.0	180806	105611	-13328	1569.6	581.3	-75.4
179.5	181590	105901	-13366	1569.5	576.6	-75.4
180.0	182375	106188	-13404	1569.4	571.9	-75.4
180.5	183160	106472	-13442	1569.2	567.1	-75.4
181.0	183944	106755	-13479	1569.1	562.4	-75.4
181.5	184729	107035	-13517	1569.0	557.6	-75.4
182.0	185513	107312	-13555	1568.8	552.9	-75.4
182.5	186298	107588	-13592	1568.7	548.1	-75.4
183.0	187082	107861	-13630	1568.6	543.4	-75.4
183.5	187866	108131	-13668	1568.4	538.7	-75.4
184.0	188650	108399	-13705	1568.3	533.9	-75.4
184.5	189435	108665	-13743	1568.1	529.2	-75.4
185.0	190219	108928	-13781	1568.0	524.4	-75.4
185.5	191002	109189	-13818	1567.9	519.7	-75.4
186.0	191786	109448	-13856	1567.7	515.0	-75.4
186.5	192570	109704	-13894	1567.6	510.2	-75.4
187.0	193354	109958	-13932	1567.4	505.5	-75.4
187.5	194138	110210	-13969	1567.3	500.7	-75.4
188.0	194921	110459	-14007	1567.1	496.0	-75.4
188.5	195705	110706	-14045	1567.0	491.3	-75.4
189.0	196488	110950	-14082	1566.9	486.5	-75.4
189.5	197272	111192	-14120	1566.7	481.8	-75.4
190.0	198055	111432	-14158	1566.6	477.1	-75.4
190.5	198838	111669	-14195	1566.4	472.3	-75.4
191.0	199621	111904	-14233	1566.3	467.6	-75.3
191.5	200404	112137	-14271	1566.1	462.9	-75.3
192.0	201187	112367	-14308	1566.0	458.1	-75.3
192.5	201970	112597	-14346	1565.8	453.4	-75.3
193.0	202753	112821	-14384	1565.7	448.7	-75.3
193.5	203536	113044	-14421	1565.5	443.9	-75.3
194.0	204319	113265	-14459	1565.4	439.2	-75.3
194.5	205101	113483	-14497	1565.2	434.5	-75.3
195.0	205884	113699	-14534	1565.1	429.7	-75.3
195.5	206667	113913	-14572	1564.9	425.0	-75.3
196.0	207449	114124	-14609	1564.8	420.3	-75.3
196.5	208231	114333	-14647	1564.6	415.5	-75.3
197.0	209014	114540	-14685	1564.5	410.8	-75.3

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
197.5	209796	114744	-14722	1564.3	406.1	-75.3
198.0	210578	114946	-14760	1564.2	401.4	-75.3
198.5	211360	115145	-14798	1564.0	396.6	-75.3
199.0	212142	115342	-14835	1563.9	391.9	-75.3
199.5	212924	115537	-14873	1563.7	387.2	-75.3
200.0	213706	115729	-14911	1563.5	382.4	-75.3
200.5	214487	115920	-14948	1563.4	377.7	-75.3
201.0	215269	116107	-14986	1563.2	373.0	-75.3
201.5	216051	116292	-15023	1563.1	368.3	-75.3
202.0	216832	116475	-15061	1562.9	363.5	-75.3
202.5	217613	116656	-15099	1562.8	358.8	-75.3
203.0	218395	116834	-15136	1562.6	354.1	-75.3
203.5	219176	117010	-15174	1562.4	349.4	-75.3
204.0	219957	117184	-15212	1562.3	344.6	-75.2
204.5	220738	117355	-15249	1562.1	339.9	-75.2
205.0	221519	117523	-15287	1561.9	335.2	-75.2
205.5	222300	117690	-15324	1561.8	330.5	-75.2
206.0	223081	117854	-15362	1561.6	325.7	-75.2
206.5	223862	118016	-15400	1561.5	321.0	-75.2
207.0	224642	118175	-15437	1561.3	316.3	-75.2
207.5	225423	118332	-15475	1561.1	311.6	-75.2
208.0	226204	118486	-15512	1561.0	306.8	-75.2
208.5	226984	118639	-15550	1560.8	302.1	-75.2
209.0	227764	118789	-15588	1560.6	297.4	-75.2
209.5	228545	118936	-15625	1560.5	292.7	-75.2
210.0	229325	119081	-15663	1560.3	287.9	-75.2
210.5	230105	119224	-15700	1560.1	283.2	-75.2
211.0	230885	119365	-15738	1560.0	278.5	-75.2
211.5	231665	119503	-15775	1559.8	273.8	-75.2
212.0	232445	119638	-15813	1559.6	269.1	-75.2
212.5	233224	119772	-15851	1559.4	264.3	-75.2
213.0	234004	119903	-15888	1559.3	259.6	-75.2
213.5	234784	120031	-15926	1559.1	254.9	-75.2
214.0	235563	120157	-15963	1558.9	250.2	-75.2
214.5	236343	120281	-16001	1558.8	245.5	-75.2
215.0	237122	120403	-16039	1558.6	240.7	-75.2
215.5	237901	120522	-16076	1558.4	236.0	-75.1
216.0	238680	120639	-16114	1558.2	231.3	-75.1
216.5	239459	120753	-16151	1558.1	226.6	-75.1
217.0	240238	120865	-16189	1557.9	221.9	-75.1

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
217.5	241017	120975	-16226	1557.7	217.1	-75.1
218.0	241796	121083	-16264	1557.5	212.4	-75.1
218.5	242575	121188	-16301	1557.4	207.7	-75.1
219.0	243353	121290	-16339	1557.2	203.0	-75.1
219.5	244132	121391	-16376	1557.0	198.3	-75.1
220.0	244910	121489	-16414	1556.8	193.6	-75.1
220.5	245689	121584	-16452	1556.6	188.8	-75.1
221.0	246467	121678	-16489	1556.5	184.1	-75.1
221.5	247245	121768	-16527	1556.3	179.4	-75.1
222.0	248023	121857	-16564	1556.1	174.7	-75.1
222.5	248801	121943	-16602	1555.9	170.0	-75.1
223.0	249579	122027	-16639	1555.7	165.3	-75.1
223.5	250357	122108	-16677	1555.6	160.5	-75.1
224.0	251135	122187	-16714	1555.4	155.8	-75.1
224.5	251912	122264	-16752	1555.2	151.1	-75.1
225.0	252690	122339	-16789	1555.0	146.4	-75.1
225.5	253467	122411	-16827	1554.8	141.7	-75.0
226.0	254245	122480	-16864	1554.6	137.0	-75.0
226.5	255022	122547	-16902	1554.5	132.3	-75.0
227.0	255799	122612	-16939	1554.3	127.5	-75.0
227.5	256576	122675	-16977	1554.1	122.8	-75.0
228.0	257353	122735	-17014	1553.9	118.1	-75.0
228.5	258130	122793	-17052	1553.7	113.4	-75.0
229.0	258907	122849	-17089	1553.5	108.7	-75.0
229.5	259684	122902	-17127	1553.3	104.0	-75.0
230.0	260460	122953	-17164	1553.1	99.3	-75.0
230.5	261237	123001	-17202	1552.9	94.5	-75.0
231.0	262013	123047	-17239	1552.8	89.8	-75.0
231.5	262790	123091	-17277	1552.6	85.1	-75.0
232.0	263566	123132	-17314	1552.4	80.4	-75.0
232.5	264342	123171	-17352	1552.2	75.7	-75.0
233.0	265118	123208	-17389	1552.0	71.0	-75.0
233.5	265894	123242	-17427	1551.8	66.3	-75.0
234.0	266670	123274	-17464	1551.6	61.6	-75.0
234.5	267446	123304	-17502	1551.4	56.8	-74.9
235.0	268221	123331	-17539	1551.2	52.1	-74.9
235.5	268997	123356	-17576	1551.0	47.4	-74.9
236.0	269772	123378	-17614	1550.8	42.7	-74.9
236.5	270548	123399	-17651	1550.6	38.0	-74.9
237.0	271323	123417	-17689	1550.4	33.3	-74.9

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
237.5	272098	123432	-17726	1550.2	28.6	-74.9
238.0	272873	123445	-17764	1550.0	23.9	-74.9
238.5	273648	123456	-17801	1549.8	19.1	-74.9
239.0	274423	123464	-17839	1549.6	14.4	-74.9
239.5	275198	123470	-17876	1549.4	9.7	-74.9
240.0	275972	123474	-17913	1549.2	5.0	-74.9
240.5	276747	123475	-17951	1549.0	0.3	-74.9
241.0	277521	123474	-17988	1548.8	-4.4	-74.9
241.5	278296	123471	-18026	1548.6	-9.1	-74.9
242.0	279070	123465	-18063	1548.4	-13.8	-74.9
242.5	279844	123457	-18100	1548.2	-18.5	-74.9
243.0	280618	123447	-18138	1548.0	-23.3	-74.8
243.5	281392	123434	-18175	1547.8	-28.0	-74.8
244.0	282166	123419	-18213	1547.6	-32.7	-74.8
244.5	282940	123401	-18250	1547.4	-37.4	-74.8
245.0	283713	123381	-18288	1547.2	-42.1	-74.8
245.5	284487	123359	-18325	1547.0	-46.8	-74.8
246.0	285260	123334	-18362	1546.8	-51.5	-74.8
246.5	286033	123307	-18400	1546.6	-56.2	-74.8
247.0	286807	123278	-18437	1546.3	-60.9	-74.8
247.5	287580	123246	-18474	1546.1	-65.7	-74.8
APEX						
247.799	288044	123226	-18497	1546.0	-68.5	-74.8
248.0	288353	123212	-18512	1545.9	-70.4	-74.8
248.5	289126	123176	-18549	1545.7	-75.1	-74.8
249.0	289899	123137	-18587	1545.5	-79.8	-74.8
249.5	290671	123096	-18624	1545.3	-84.5	-74.8
250.0	291444	123053	-18661	1545.1	-89.2	-74.8
250.5	292216	123007	-18699	1544.9	-93.9	-74.8
251.0	292989	122959	-18736	1544.7	-98.6	-74.7
251.5	293761	122908	-18773	1544.4	-103.3	-74.7
252.0	294533	122856	-18811	1544.2	-108.0	-74.7
252.5	295305	122800	-18848	1544.0	-112.8	-74.7
253.0	296077	122743	-18885	1543.8	-117.5	-74.7
253.5	296849	122683	-18923	1543.6	-122.2	-74.7
254.0	297621	122621	-18960	1543.4	-126.9	-74.7
254.5	298392	122556	-18997	1543.2	-131.6	-74.7
255.0	299164	122489	-19035	1542.9	-136.3	-74.7
255.5	299935	122420	-19072	1542.7	-141.0	-74.7

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TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
256.0	300706	122348	-19109	1542.5	-145.7	-74.7
256.5	301478	122274	-19147	1542.3	-150.4	-74.7
257.0	302249	122198	-19184	1542.1	-155.2	-74.7
257.5	303020	122119	-19221	1541.8	-159.9	-74.7
258.0	303791	122038	-19259	1541.6	-164.6	-74.6
258.5	304561	121954	-19296	1541.4	-169.3	-74.6
259.0	305332	121868	-19333	1541.2	-174.0	-74.6
259.5	306102	121780	-19371	1540.9	-178.7	-74.6
260.0	306873	121690	-19408	1540.7	-183.4	-74.6
260.5	307643	121597	-19445	1540.5	-188.1	-74.6
261.0	308413	121502	-19482	1540.3	-192.8	-74.6
261.5	309183	121404	-19520	1540.1	-197.6	-74.6
262.0	309953	121304	-19557	1539.8	-202.3	-74.6
262.5	310723	121202	-19594	1539.6	-207.0	-74.6
263.0	311493	121097	-19631	1539.4	-211.7	-74.6
263.5	312263	120990	-19669	1539.1	-216.4	-74.6
264.0	313032	120881	-19706	1538.9	-221.1	-74.6
264.5	313802	120769	-19743	1538.7	-225.8	-74.6
265.0	314571	120655	-19781	1538.5	-230.5	-74.5
265.5	315340	120538	-19818	1538.2	-235.2	-74.5
266.0	316109	120420	-19855	1538.0	-240.0	-74.5
266.5	316878	120298	-19892	1537.8	-244.7	-74.5
267.0	317647	120175	-19930	1537.5	-249.4	-74.5
267.5	318416	120049	-19967	1537.3	-254.1	-74.5
268.0	319184	119921	-20004	1537.1	-258.8	-74.5
268.5	319953	119790	-20041	1536.8	-263.5	-74.5
269.0	320721	119657	-20078	1536.6	-268.2	-74.5
269.5	321489	119522	-20116	1536.4	-272.9	-74.5
270.0	322257	119384	-20153	1536.1	-277.7	-74.5
270.5	323025	119244	-20190	1535.9	-282.4	-74.5
271.0	323793	119102	-20227	1535.7	-287.1	-74.5
271.5	324561	118957	-20264	1535.4	-291.8	-74.5
272.0	325329	118810	-20302	1535.2	-296.5	-74.4
272.5	326096	118661	-20339	1535.0	-301.2	-74.4
273.0	326864	118509	-20376	1534.7	-305.9	-74.4
273.5	327631	118355	-20413	1534.5	-310.6	-74.4
274.0	328398	118198	-20450	1534.2	-315.4	-74.4
274.5	329165	118039	-20488	1534.0	-320.1	-74.4
275.0	329932	117878	-20525	1533.8	-324.8	-74.4
275.5	330699	117715	-20562	1533.5	-329.5	-74.4

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TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
276.0	331466	117549	-20599	1533.3	-334.2	-74.4
276.5	332232	117380	-20636	1533.0	-338.9	-74.4
277.0	332999	117210	-20674	1532.8	-343.6	-74.4
277.5	333765	117037	-20711	1532.5	-348.4	-74.4
278.0	334531	116861	-20748	1532.3	-353.1	-74.3
278.5	335297	116684	-20785	1532.1	-357.8	-74.3
279.0	336063	116504	-20822	1531.8	-362.5	-74.3
279.5	336829	116321	-20859	1531.6	-367.2	-74.3
280.0	337595	116136	-20896	1531.3	-371.9	-74.3
280.5	338360	115949	-20934	1531.1	-376.7	-74.3
281.0	339126	115760	-20971	1530.8	-381.4	-74.3
281.5	339891	115568	-21008	1530.6	-386.1	-74.3
282.0	340656	115374	-21045	1530.3	-390.8	-74.3
282.5	341421	115177	-21082	1530.1	-395.5	-74.3
283.0	342186	114978	-21119	1529.8	-400.2	-74.3
283.5	342951	114777	-21156	1529.6	-404.9	-74.3
284.0	343716	114573	-21193	1529.3	-409.7	-74.2
284.5	344481	114367	-21230	1529.1	-414.4	-74.2
285.0	345245	114159	-21268	1528.8	-419.1	-74.2
285.5	346009	113948	-21305	1528.6	-423.8	-74.2
286.0	346774	113735	-21342	1528.3	-428.5	-74.2
286.5	347538	113519	-21379	1528.1	-433.3	-74.2
287.0	348302	113302	-21416	1527.8	-438.0	-74.2
287.5	349065	113082	-21453	1527.6	-442.7	-74.2
288.0	349829	112859	-21490	1527.3	-447.4	-74.2
288.5	350593	112634	-21527	1527.1	-452.1	-74.2
289.0	351356	112407	-21564	1526.8	-456.8	-74.2
289.5	352120	112177	-21601	1526.5	-461.6	-74.2
290.0	352883	111945	-21638	1526.3	-466.3	-74.1
290.5	353646	111711	-21675	1526.0	-471.0	-74.1
291.0	354409	111474	-21712	1525.8	-475.7	-74.1
291.5	355172	111235	-21749	1525.5	-480.5	-74.1
292.0	355934	110994	-21786	1525.2	-485.2	-74.1
292.5	356697	110750	-21823	1525.0	-489.9	-74.1
293.0	357459	110504	-21860	1524.7	-494.6	-74.1
293.5	358222	110255	-21897	1524.5	-499.3	-74.1
294.0	358984	110005	-21934	1524.2	-504.1	-74.1
294.5	359746	109751	-21971	1523.9	-508.8	-74.1
295.0	360508	109496	-22009	1523.7	-513.5	-74.1
295.5	361269	109238	-22045	1523.4	-518.2	-74.0

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TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
296.0	362031	108978	-22082	1523.1	-522.9	-74.0
296.5	362793	108715	-22119	1522.9	-527.7	-74.0
297.0	363554	108450	-22156	1522.6	-532.4	-74.0
297.5	364315	108182	-22193	1522.3	-537.1	-74.0
298.0	365076	107913	-22230	1522.1	-541.8	-74.0
298.5	365837	107641	-22267	1521.8	-546.6	-74.0
299.0	366598	107366	-22304	1521.5	-551.3	-74.0
299.5	367359	107089	-22341	1521.3	-556.0	-74.0
300.0	368119	106810	-22378	1521.0	-560.7	-74.0
300.5	368880	106529	-22415	1520.7	-565.5	-74.0
301.0	369640	106245	-22452	1520.5	-570.2	-73.9
301.5	370400	105958	-22489	1520.2	-574.9	-73.9
302.0	371160	105670	-22526	1519.9	-579.6	-73.9
302.5	371920	105379	-22563	1519.7	-584.4	-73.9
303.0	372680	105085	-22600	1519.4	-589.1	-73.9
303.5	373439	104790	-22637	1519.1	-593.8	-73.9
304.0	374199	104492	-22674	1518.8	-598.6	-73.9
304.5	374958	104191	-22711	1518.6	-603.3	-73.9
305.0	375717	103888	-22748	1518.3	-608.0	-73.9
305.5	376477	103583	-22785	1518.0	-612.7	-73.9
306.0	377235	103276	-22821	1517.7	-617.5	-73.9
306.5	377994	102966	-22858	1517.5	-622.2	-73.8
307.0	378753	102653	-22895	1517.2	-626.9	-73.8
307.5	379511	102339	-22932	1516.9	-631.7	-73.8
308.0	380270	102022	-22969	1516.6	-636.4	-73.8
308.5	381028	101702	-23006	1516.3	-641.1	-73.8
309.0	381786	101381	-23043	1516.1	-645.9	-73.8
309.5	382544	101056	-23080	1515.8	-650.6	-73.8
310.0	383302	100730	-23116	1515.5	-655.3	-73.8
310.5	384060	100401	-23153	1515.2	-660.1	-73.8
311.0	384817	100070	-23190	1514.9	-664.8	-73.8
311.5	385575	99736	-23227	1514.7	-669.5	-73.7
312.0	386332	99400	-23264	1514.4	-674.3	-73.7
312.5	387089	99062	-23301	1514.1	-679.0	-73.7
313.0	387846	98721	-23338	1513.8	-683.7	-73.7
313.5	388603	98378	-23374	1513.5	-688.5	-73.7
314.0	389359	98033	-23411	1513.2	-693.2	-73.7
314.5	390116	97685	-23448	1512.9	-697.9	-73.7
315.0	390872	97335	-23485	1512.7	-702.7	-73.7
315.5	391629	96982	-23522	1512.4	-707.4	-73.7

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TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
316.0	392385	96627	-23558	1512.1	-712.1	-73.7
316.5	393141	96270	-23595	1511.8	-716.9	-73.6
317.0	393896	95911	-23632	1511.5	-721.6	-73.6
317.5	394652	95549	-23669	1511.2	-726.4	-73.6
318.0	395408	95184	-23706	1510.9	-731.1	-73.6
318.5	396163	94818	-23742	1510.6	-735.8	-73.6
319.0	396918	94448	-23779	1510.3	-740.6	-73.6
319.5	397673	94077	-23816	1510.0	-745.3	-73.6
320.0	398428	93703	-23853	1509.8	-750.0	-73.6
320.5	399183	93327	-23889	1509.5	-754.8	-73.6
321.0	399938	92948	-23926	1509.2	-759.5	-73.6
321.5	400692	92567	-23963	1508.9	-764.3	-73.5
322.0	401447	92184	-24000	1508.6	-769.0	-73.5
322.5	402201	91798	-24036	1508.3	-773.8	-73.5
323.0	402955	91410	-24073	1508.0	-778.5	-73.5
323.5	403709	91020	-24110	1507.7	-783.2	-73.5
324.0	404462	90627	-24146	1507.4	-788.0	-73.5
324.5	405216	90232	-24183	1507.1	-792.7	-73.5
325.0	405970	89834	-24220	1506.8	-797.5	-73.5
325.5	406723	89434	-24257	1506.5	-802.2	-73.5
326.0	407476	89032	-24293	1506.2	-807.0	-73.4
326.5	408229	88627	-24330	1505.9	-811.7	-73.4
327.0	408982	88220	-24367	1505.6	-816.5	-73.4
327.5	409735	87811	-24403	1505.3	-821.2	-73.4
328.0	410487	87399	-24440	1505.0	-826.0	-73.4
328.5	411240	86985	-24477	1504.7	-830.7	-73.4
329.0	411992	86568	-24513	1504.4	-835.5	-73.4
329.5	412744	86150	-24550	1504.1	-840.2	-73.4
330.0	413496	85728	-24587	1503.8	-845.0	-73.4
330.5	414248	85305	-24623	1503.5	-849.7	-73.3
331.0	414999	84878	-24660	1503.2	-854.5	-73.3
331.5	415751	84450	-24697	1502.9	-859.2	-73.3
332.0	416502	84019	-24733	1502.5	-864.0	-73.3
332.5	417253	83586	-24770	1502.2	-868.7	-73.3
333.0	418004	83151	-24806	1501.9	-873.5	-73.3
333.5	418755	82713	-24843	1501.6	-878.2	-73.3
334.0	419506	82272	-24880	1501.3	-883.0	-73.3
334.5	420257	81830	-24916	1501.0	-887.7	-73.3
335.0	421007	81385	-24953	1500.7	-892.5	-73.2
335.5	421757	80937	-24989	1500.4	-897.2	-73.2

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
336.0	422507	80487	-25026	1500.1	-902.0	-73.2
336.5	423257	80035	-25063	1499.8	-906.8	-73.2
337.0	424007	79581	-25099	1499.4	-911.5	-73.2
337.5	424757	79124	-25136	1499.1	-916.3	-73.2
338.0	425506	78664	-25172	1498.8	-921.0	-73.2
338.5	426255	78203	-25209	1498.5	-925.8	-73.2
339.0	427005	77739	-25245	1498.2	-930.5	-73.2
339.5	427754	77272	-25282	1497.9	-935.3	-73.1
340.0	428502	76803	-25318	1497.5	-940.1	-73.1
340.5	429251	76332	-25355	1497.2	-944.8	-73.1
341.0	430000	75858	-25392	1496.9	-949.6	-73.1
341.5	430748	75382	-25428	1496.6	-954.4	-73.1
342.0	431496	74904	-25465	1496.3	-959.1	-73.1
342.5	432244	74423	-25501	1496.0	-963.9	-73.1
343.0	432992	73940	-25538	1495.6	-968.6	-73.1
343.5	433740	73455	-25574	1495.3	-973.4	-73.1
344.0	434487	72967	-25611	1495.0	-978.2	-73.0
344.5	435235	72476	-25647	1494.7	-982.9	-73.0
345.0	435982	71984	-25684	1494.3	-987.7	-73.0
345.5	436729	71489	-25720	1494.0	-992.5	-73.0
346.0	437476	70991	-25756	1493.7	-997.2	-73.0
346.5	438223	70492	-25793	1493.4	-1002.0	-73.0
347.0	438969	69989	-25829	1493.0	-1006.8	-73.0
347.5	439716	69485	-25866	1492.7	-1011.5	-73.0
348.0	440462	68978	-25902	1492.4	-1016.3	-72.9
348.5	441208	68468	-25939	1492.1	-1021.1	-72.9
349.0	441954	67957	-25975	1491.7	-1025.9	-72.9
349.5	442700	67442	-26012	1491.4	-1030.6	-72.9
350.0	443446	66926	-26048	1491.1	-1035.4	-72.9
350.5	444191	66407	-26084	1490.7	-1040.2	-72.9
351.0	444936	65885	-26121	1490.4	-1045.0	-72.9
351.5	445681	65362	-26157	1490.1	-1049.7	-72.9
352.0	446426	64836	-26193	1489.7	-1054.5	-72.9
352.5	447171	64308	-26230	1489.4	-1059.3	-72.8
353.0	447916	63777	-26266	1489.1	-1064.1	-72.8
353.5	448660	63244	-26303	1488.7	-1068.8	-72.8
354.0	449405	62708	-26339	1488.4	-1073.6	-72.8
354.5	450149	62170	-26375	1488.1	-1078.4	-72.8
355.0	450893	61630	-26412	1487.7	-1083.2	-72.8
355.5	451636	61087	-26448	1487.4	-1087.9	-72.8

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
356.0	452380	60542	-26484	1487.1	-1092.7	-72.8
356.5	453123	59994	-26521	1486.7	-1097.5	-72.7
357.0	453867	59444	-26557	1486.4	-1102.3	-72.7
357.5	454610	58892	-26593	1486.0	-1107.1	-72.7
358.0	455353	58337	-26630	1485.7	-1111.9	-72.7
358.5	456095	57780	-26666	1485.4	-1116.6	-72.7
359.0	456838	57220	-26702	1485.0	-1121.4	-72.7
359.5	457580	56659	-26739	1484.7	-1126.2	-72.7
360.0	458323	56094	-26775	1484.3	-1131.0	-72.7
360.5	459065	55528	-26811	1484.0	-1135.8	-72.6
361.0	459807	54958	-26847	1483.6	-1140.6	-72.6
361.5	460548	54387	-26884	1483.3	-1145.3	-72.6
362.0	461290	53813	-26920	1482.9	-1150.1	-72.6
362.5	462031	53237	-26956	1482.6	-1154.9	-72.6
363.0	462772	52658	-26993	1482.2	-1159.7	-72.6
363.5	463513	52077	-27029	1481.9	-1164.5	-72.6
364.0	464254	51494	-27065	1481.5	-1169.3	-72.5
364.5	464995	50908	-27101	1481.2	-1174.1	-72.5
365.0	465736	50320	-27137	1480.8	-1178.8	-72.5
365.5	466476	49729	-27174	1480.5	-1183.6	-72.5
366.0	467216	49136	-27210	1480.1	-1188.4	-72.5
366.5	467956	48541	-27246	1479.8	-1193.2	-72.5
367.0	468696	47943	-27282	1479.4	-1198.0	-72.5
367.5	469435	47343	-27318	1479.1	-1202.8	-72.5
368.0	470175	46740	-27355	1478.7	-1207.6	-72.4
368.5	470914	46135	-27391	1478.3	-1212.4	-72.4
369.0	471653	45528	-27427	1478.0	-1217.2	-72.4
369.5	472392	44918	-27463	1477.6	-1222.0	-72.4
370.0	473131	44306	-27499	1477.2	-1226.7	-72.4
370.5	473869	43691	-27535	1476.9	-1231.5	-72.4
371.0	474607	43074	-27572	1476.5	-1236.3	-72.4
371.5	475346	42455	-27608	1476.1	-1241.1	-72.4
372.0	476084	41833	-27644	1475.8	-1245.9	-72.3
372.5	476821	41209	-27680	1475.4	-1250.7	-72.3
373.0	477559	40582	-27716	1475.0	-1255.5	-72.3
373.5	478296	39953	-27752	1474.6	-1260.3	-72.3
374.0	479034	39322	-27788	1474.3	-1265.1	-72.3
374.5	479771	38688	-27824	1473.9	-1269.8	-72.3
375.0	480507	38052	-27861	1473.5	-1274.6	-72.3
375.5	481244	37414	-27897	1473.1	-1279.4	-72.2

TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
376.0	481981	36773	-27933	1472.7	-1284.2	-72.2
376.5	482717	36129	-27969	1472.3	-1289.0	-72.2
377.0	483453	35484	-28005	1471.9	-1293.8	-72.2
377.5	484189	34836	-28041	1471.6	-1298.5	-72.2
378.0	484924	34185	-28077	1471.2	-1303.3	-72.2
378.5	485660	33532	-28113	1470.8	-1308.1	-72.2
379.0	486395	32877	-28149	1470.4	-1312.9	-72.2
379.5	487130	32220	-28185	1469.9	-1317.6	-72.1
380.0	487865	31560	-28221	1469.5	-1322.4	-72.1
380.5	488600	30897	-28257	1469.1	-1327.2	-72.1
381.0	489334	30232	-28293	1468.7	-1331.9	-72.1
381.5	490068	29565	-28329	1468.3	-1336.7	-72.1
382.0	490802	28896	-28365	1467.9	-1341.4	-72.1
382.5	491536	28224	-28401	1467.4	-1346.2	-72.1
383.0	492270	27550	-28437	1467.0	-1350.9	-72.0
383.5	493003	26873	-28473	1466.5	-1355.7	-72.0
384.0	493736	26194	-28509	1466.1	-1360.4	-72.0
384.5	494469	25512	-28545	1465.6	-1365.1	-72.0
385.0	495202	24829	-28581	1465.2	-1369.8	-72.0
385.5	495934	24143	-28617	1464.7	-1374.5	-72.0
386.0	496667	23454	-28653	1464.2	-1379.2	-72.0
386.5	497399	22763	-28689	1463.7	-1383.9	-72.0
387.0	498130	22070	-28725	1463.2	-1388.5	-71.9
387.5	498862	21375	-28761	1462.7	-1393.2	-71.9
388.0	499593	20677	-28796	1462.1	-1397.8	-71.9
388.5	500324	19977	-28832	1461.6	-1402.4	-71.9
389.0	501055	19275	-28868	1461.0	-1407.0	-71.9
389.5	501785	18570	-28904	1460.4	-1411.6	-71.9
390.0	502515	17863	-28940	1459.8	-1416.1	-71.9
390.5	503245	17154	-28976	1459.2	-1420.6	-71.9
391.0	503974	16442	-29012	1458.5	-1425.1	-71.9
391.5	504703	15729	-29048	1457.8	-1429.5	-71.8
392.0	505432	15013	-29084	1457.1	-1433.9	-71.8
392.5	506160	14295	-29119	1456.3	-1438.2	-71.8
393.0	506888	13575	-29155	1455.5	-1442.5	-71.8
393.5	507616	12852	-29191	1454.7	-1446.8	-71.8
394.0	508343	12128	-29227	1453.8	-1450.9	-71.8
394.5	509070	11402	-29263	1452.9	-1455.0	-71.8
395.0	509796	10673	-29299	1451.8	-1459.0	-71.8
395.5	510521	9943	-29335	1450.8	-1462.9	-71.8

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TABLE V

TIME SEC	SPACE-FIXED-POSITION			SPACE-FIXED-VELOCITY		
	X M	Y M	Z M	X M/SEC	Y M/SEC	Z M/SEC
396.0	511246	9210	-29370	1449.6	-1466.7	-71.8
396.5	511971	8476	-29406	1448.3	-1470.3	-71.8
397.0	512695	7740	-29442	1447.0	-1473.9	-71.8
397.5	513418	7002	-29478	1445.5	-1477.3	-71.8
LOSS OF TELEMETRY						
397.796	513851	6559	-29500	1444.6	-1479.2	-71.8

TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
FIRST MOTION												
0.400	0.08		3.53		-0.00		0.08		3.51		-0.02	
0.5	0.07		3.55		-0.00		0.07		3.52		-0.02	
LIFT OFF SIGNAL												
0.580	0.07		3.56		-0.00		0.07		3.53		-0.02	
1.0	0.04		3.62		0.00		0.04		3.59		-0.01	
1.5	0.02		3.69		0.01		0.01		3.66		-0.01	
2.0	-0.01		3.75		0.01		-0.01		3.73		-0.00	
2.5	-0.03		3.82		0.02		-0.03		3.79		0.00	
3.0	-0.05		3.88		0.02		-0.05		3.86		0.01	
3.5	-0.07		3.95		0.02		-0.07		3.92		0.01	
4.0	-0.08		4.01		0.03		-0.08		3.98		0.01	
4.5	-0.09		4.07		0.03		-0.09		4.04		0.02	
5.0	-0.09		4.12		0.03		-0.09		4.10		0.02	
5.5	-0.10		4.18		0.04		-0.10		4.15		0.02	
6.0	-0.10		4.24		0.04		-0.10		4.21		0.03	
6.5	-0.09		4.29		0.04		-0.09		4.26		0.03	
7.0	-0.09		4.34		0.04		-0.08		4.32		0.03	
7.5	-0.08		4.40		0.05		-0.07		4.37		0.03	
8.0	-0.06		4.45		0.05		-0.06		4.42		0.03	
8.5	-0.05		4.50		0.05		-0.04		4.47		0.03	
9.0	-0.03		4.55		0.05		-0.02		4.52		0.03	
9.5	-0.00		4.60		0.05		0.00		4.57		0.03	
10.0	0.02		4.65		0.05		0.03		4.62		0.04	
10.5	0.05		4.69		0.05		0.06		4.67		0.03	
11.0	0.09		4.74		0.05		0.09		4.71		0.03	
11.5	0.12		4.79		0.05		0.13		4.76		0.03	
12.0	0.16		4.83		0.05		0.17		4.81		0.03	
12.5	0.21		4.88		0.05		0.22		4.85		0.03	
13.0	0.26		4.92		0.04		0.26		4.90		0.03	
13.5	0.31		4.97		0.04		0.32		4.94		0.03	
14.0	0.36		5.01		0.04		0.37		4.99		0.02	
14.5	0.42		5.06		0.04		0.43		5.03		0.02	
15.0	0.48		5.10		0.03		0.49		5.08		0.02	
15.5	0.55		5.15		0.03		0.56		5.12		0.01	
16.0	0.62		5.19		0.03		0.63		5.16		0.01	
16.5	0.69		5.24		0.02		0.70		5.21		0.01	
17.0	0.76		5.28		0.02		0.78		5.25		0.00	

TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
17.5	0.84		5.33		0.01		0.86		5.30		-0.00	
18.0	0.93		5.37		0.01		0.94		5.34		-0.01	
18.5	1.02		5.42		0.00		1.03		5.39		-0.02	
19.0	1.11		5.46		-0.00		1.12		5.43		-0.02	
19.5	1.20		5.51		-0.01		1.22		5.48		-0.03	
20.0	1.30		5.55		-0.02		1.32		5.53		-0.04	
20.5	1.36		5.66		-0.02		1.38		5.63		-0.04	
21.0	1.43		5.75		-0.04		1.45		5.72		-0.06	
21.5	1.52		5.78		-0.05		1.54		5.75		-0.07	
22.0	1.60		5.83		-0.07		1.62		5.80		-0.09	
22.5	1.69		5.88		-0.08		1.71		5.85		-0.10	
23.0	1.79		5.93		-0.09		1.81		5.90		-0.11	
23.5	1.88		5.97		-0.10		1.90		5.94		-0.12	
24.0	1.97		6.01		-0.11		1.99		5.98		-0.13	
24.5	2.06		6.05		-0.11		2.08		6.02		-0.13	
25.0	2.15		6.07		-0.11		2.18		6.04		-0.13	
25.5	2.26		6.11		-0.11		2.29		6.08		-0.13	
26.0	2.37		6.14		-0.11		2.40		6.11		-0.13	
26.5	2.49		6.18		-0.12		2.52		6.15		-0.14	
27.0	2.61		6.23		-0.13		2.64		6.19		-0.15	
27.5	2.74		6.27		-0.14		2.76		6.24		-0.16	
28.0	2.86		6.33		-0.15		2.89		6.30		-0.17	
28.5	2.98		6.38		-0.16		3.00		6.35		-0.19	
29.0	3.08		6.43		-0.17		3.11		6.40		-0.19	
29.5	3.18		6.47		-0.18		3.21		6.44		-0.20	
30.0	3.27		6.51		-0.19		3.30		6.47		-0.21	
30.5	3.35		6.52		-0.20		3.38		6.49		-0.23	
31.0	3.44		6.53		-0.23		3.47		6.50		-0.25	
31.5	3.53		6.56		-0.25		3.56		6.52		-0.28	
32.0	3.63		6.59		-0.28		3.66		6.55		-0.31	
32.5	3.73		6.63		-0.31		3.76		6.59		-0.33	
33.0	3.84		6.66		-0.32		3.87		6.63		-0.35	
33.5	3.93		6.71		-0.32		3.97		6.67		-0.35	
34.0	4.02		6.76		-0.29		4.05		6.72		-0.32	
34.5	4.07		6.82		-0.24		4.11		6.78		-0.27	
35.0	4.11		6.88		-0.16		4.15		6.84		-0.19	
35.5	4.13		6.94		-0.08		4.16		6.90		-0.11	
36.0	4.13		7.00		-0.01		4.17		6.96		-0.04	
36.5	4.13		7.08		0.05		4.17		7.04		0.02	
37.0	4.13		7.16		0.08		4.17		7.12		0.05	

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC	Y M/SEC	Z M/SEC	X M/SEC	Y M/SEC	Z M/SEC
SQ	SQ	SQ	SQ	SQ	SQ	SQ
37.5	4.15	7.24	0.07	4.19	7.19	0.04
38.0	4.18	7.32	0.04	4.22	7.27	0.01
38.5	4.20	7.38	-0.02	4.25	7.33	-0.06
39.0	4.26	7.44	-0.09	4.30	7.39	-0.12
39.5	4.32	7.50	-0.14	4.37	7.45	-0.18
40.0	4.39	7.55	-0.18	4.43	7.50	-0.22
40.5	4.44	7.60	-0.20	4.48	7.55	-0.24
41.0	4.48	7.65	-0.20	4.52	7.60	-0.23
41.5	4.53	7.70	-0.18	4.57	7.65	-0.21
42.0	4.57	7.75	-0.15	4.62	7.70	-0.19
42.5	4.63	7.79	-0.14	4.68	7.74	-0.17
43.0	4.69	7.81	-0.15	4.74	7.76	-0.18
43.5	4.74	7.84	-0.17	4.79	7.79	-0.20
44.0	4.79	7.85	-0.20	4.84	7.80	-0.24
44.5	4.85	7.88	-0.23	4.90	7.83	-0.27
45.0	4.91	7.92	-0.24	4.96	7.86	-0.28
45.5	4.98	7.95	-0.23	5.03	7.90	-0.27
46.0	5.05	8.01	-0.19	5.10	7.95	-0.23
46.5	5.11	8.05	-0.13	5.16	8.00	-0.17
47.0	5.16	8.10	-0.07	5.21	8.05	-0.11
47.5	5.21	8.14	-0.01	5.26	8.08	-0.05
48.0	5.23	8.15	0.04	5.29	8.09	-0.00
48.5	5.28	8.14	0.06	5.34	8.08	0.02
49.0	5.34	8.11	0.07	5.40	8.05	0.03
49.5	5.41	8.05	0.06	5.47	8.00	0.02
50.0	5.48	7.97	0.03	5.54	7.91	-0.01
 MACH ONE						
50.146	5.51	7.95	0.02	5.57	7.89	-0.02
50.5	5.57	7.89	-0.01	5.63	7.83	-0.05
51.0	5.69	7.81	-0.04	5.75	7.75	-0.08
51.5	5.82	7.75	-0.07	5.88	7.68	-0.11
52.0	5.97	7.70	-0.09	6.03	7.64	-0.13
52.5	6.09	7.67	-0.10	6.15	7.61	-0.15
53.0	6.20	7.66	-0.11	6.26	7.60	-0.16
53.5	6.28	7.68	-0.11	6.34	7.61	-0.15
54.0	6.34	7.72	-0.09	6.41	7.65	-0.14
54.5	6.40	7.78	-0.05	6.46	7.72	-0.10
55.0	6.48	7.85	0.01	6.54	7.78	-0.04
55.5	6.57	7.93	0.09	6.64	7.86	0.04

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
56.0	6.68		8.00		0.19		6.75		7.93		0.14	
56.5	6.81		8.08		0.30		6.88		8.01		0.25	
57.0	6.93		8.17		0.39		7.01		8.10		0.34	
57.5	7.06		8.26		0.43		7.14		8.18		0.38	
58.0	7.19		8.35		0.41		7.27		8.27		0.35	
58.5	7.32		8.44		0.30		7.40		8.37		0.25	
59.0	7.44		8.54		0.13		7.51		8.46		0.07	
59.5	7.55		8.64		-0.10		7.62		8.56		-0.15	
60.0	7.64		8.75		-0.34		7.72		8.67		-0.40	
60.5	7.75		8.86		-0.56		7.82		8.78		-0.62	
61.0	7.85		8.97		-0.72		7.93		8.89		-0.78	
61.5	7.97		9.07		-0.80		8.05		8.99		-0.86	
62.0	8.11		9.17		-0.77		8.19		9.09		-0.83	
MAXIMUM DYNAMIC PRESSURE												
62.100	8.14		9.19		-0.74		8.22		9.10		-0.80	
62.5	8.25		9.27		-0.60		8.33		9.18		-0.67	
63.0	8.38		9.38		-0.35		8.46		9.29		-0.41	
63.5	8.48		9.50		-0.02		8.57		9.42		-0.08	
64.0	8.55		9.65		0.31		8.64		9.56		0.24	
64.5	8.59		9.81		0.58		8.68		9.72		0.51	
65.0	8.62		9.97		0.74		8.71		9.88		0.68	
65.5	8.66		10.14		0.78		8.76		10.05		0.71	
66.0	8.72		10.29		0.69		8.82		10.20		0.63	
66.5	8.80		10.44		0.51		8.90		10.34		0.44	
67.0	8.92		10.56		0.27		9.02		10.47		0.21	
67.5	9.10		10.66		0.04		9.20		10.57		-0.03	
68.0	9.32		10.75		-0.15		9.42		10.65		-0.22	
68.5	9.57		10.82		-0.23		9.67		10.72		-0.31	
69.0	9.80		10.90		-0.22		9.90		10.80		-0.29	
69.5	10.00		11.00		-0.10		10.11		10.89		-0.18	
70.0	10.17		11.11		0.07		10.27		11.01		-0.01	
70.5	10.31		11.25		0.25		10.41		11.14		0.17	
71.0	10.43		11.39		0.37		10.54		11.28		0.29	
71.5	10.54		11.53		0.40		10.65		11.42		0.32	
72.0	10.70		11.65		0.37		10.82		11.54		0.29	
72.5	10.91		11.75		0.28		11.02		11.63		0.20	
73.0	11.15		11.83		0.18		11.27		11.71		0.09	
73.5	11.42		11.90		0.08		11.54		11.78		-0.01	
74.0	11.69		11.97		0.01		11.81		11.85		-0.07	

TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
74.5	11.97	12.03	0.00	12.09	11.91	-0.09
75.0	12.21	12.12	0.04	12.33	11.99	-0.05
75.5	12.41	12.22	0.11	12.53	12.10	0.02
76.0	12.57	12.34	0.19	12.70	12.21	0.09
76.5	12.71	12.47	0.24	12.84	12.34	0.14
77.0	12.87	12.58	0.26	13.00	12.45	0.16
77.5	13.06	12.69	0.24	13.19	12.55	0.15
78.0	13.30	12.76	0.22	13.43	12.63	0.12
78.5	13.56	12.82	0.18	13.70	12.68	0.08
79.0	13.84	12.87	0.15	13.98	12.73	0.05
79.5	14.15	12.91	0.14	14.29	12.76	0.03
80.0	14.45	12.95	0.13	14.59	12.80	0.03
80.5	14.74	13.00	0.14	14.88	12.85	0.03
81.0	14.99	13.07	0.14	15.13	12.91	0.03
81.5	15.23	13.15	0.14	15.37	12.99	0.03
82.0	15.46	13.23	0.12	15.60	13.07	0.01
82.5	15.65	13.34	0.10	15.80	13.17	-0.02
83.0	15.83	13.45	0.09	15.98	13.29	-0.03
83.5	16.02	13.57	0.09	16.17	13.41	-0.03
84.0	16.22	13.67	0.09	16.37	13.50	-0.03
84.5	16.43	13.75	0.10	16.58	13.58	-0.02
85.0	16.66	13.82	0.10	16.81	13.64	-0.02
85.5	16.88	13.89	0.11	17.04	13.71	-0.01
86.0	17.11	13.96	0.12	17.27	13.78	-0.01
86.5	17.32	14.05	0.13	17.48	13.86	-0.00
87.0	17.53	14.14	0.12	17.69	13.95	-0.01
87.5	17.72	14.23	0.10	17.89	14.04	-0.03
88.0	17.95	14.36	0.14	18.12	14.17	0.00
88.5	18.14	14.47	0.11	18.31	14.27	-0.03
89.0	18.34	14.57	0.09	18.51	14.37	-0.05
89.5	18.54	14.67	0.09	18.72	14.46	-0.05
90.0	18.69	14.80	0.09	18.87	14.60	-0.05
90.5	18.94	14.89	0.12	19.11	14.69	-0.03
91.0	19.14	14.99	0.13	19.32	14.78	-0.02
91.5	19.32	15.10	0.12	19.50	14.89	-0.03
92.0	19.46	15.23	0.11	19.64	15.02	-0.04
92.5	19.58	15.38	0.10	19.76	15.16	-0.05
93.0	19.72	15.52	0.10	19.91	15.30	-0.05
93.5	19.90	15.65	0.12	20.09	15.43	-0.03
94.0	20.11	15.76	0.14	20.30	15.53	-0.02

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
94.5	20.35		15.84		0.15		20.54		15.61		-0.01	
95.0	20.60		15.92		0.16		20.79		15.69		-0.00	
95.5	20.90		15.95		0.16		21.10		15.72		-0.00	
96.0	21.06		16.04		0.16		21.25		15.80		-0.00	
96.5	21.21		16.13		0.17		21.42		15.89		-0.00	
97.0	21.39		16.24		0.17		21.59		15.99		-0.00	
97.5	21.59		16.35		0.17		21.79		16.10		-0.00	
98.0	21.79		16.46		0.17		22.00		16.21		-0.00	
98.5	22.02		16.59		0.18		22.23		16.34		-0.00	
99.0	22.26		16.73		0.18		22.47		16.47		-0.00	
99.5	22.52		16.88		0.18		22.73		16.62		-0.00	
100.0	22.79		17.04		0.18		23.00		16.78		-0.00	
100.5	23.07		17.21		0.19		23.29		16.94		-0.00	
ENGINE N <small>O</small> . 5 CUTOFF SIGNAL												
100.620	23.15		17.25		0.19		23.37		16.98		-0.00	
BEGIN ENGINE N <small>O</small> . 5 THRUST DECAY												
100.750	23.32		17.30		0.19		23.54		17.02		-0.00	
101.0	22.04		15.15		0.18		22.25		14.88		-0.00	
101.5	20.58		13.83		0.18		20.78		13.57		-0.00	
102.0	20.72		13.89		0.18		20.92		13.63		-0.00	
END ENGINE N <small>O</small> . 5 THRUST DECAY												
102.430	20.83		13.95		0.18		21.04		13.69		-0.00	
102.5	20.85		13.97		0.18		21.05		13.70		-0.00	
103.0	20.99		14.04		0.18		21.19		13.77		-0.00	
103.5	21.11		14.13		0.18		21.32		13.86		-0.00	
104.0	21.25		14.21		0.19		21.46		13.94		-0.00	
104.5	21.39		14.32		0.19		21.60		14.04		-0.00	
105.0	21.51		14.42		0.19		21.72		14.14		-0.00	
105.5	21.64		14.52		0.19		21.86		14.24		-0.00	
106.0	21.77		14.64		0.19		21.98		14.36		-0.00	
106.5	21.90		14.76		0.20		22.12		14.48		-0.00	
107.0	22.03		14.89		0.20		22.25		14.60		-0.00	
107.5	22.15		15.02		0.20		22.38		14.73		-0.00	
108.0	22.28		15.16		0.20		22.51		14.86		-0.00	
108.5	22.41		15.30		0.20		22.64		15.01		-0.00	
109.0	22.54		15.46		0.21		22.77		15.16		-0.00	
109.5	22.66		15.62		0.21		22.89		15.31		-0.00	

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
110.0	22.79	15.77	0.21	23.02	15.47	-0.00
110.5	22.92	15.95	0.21	23.16	15.63	-0.00
111.0	23.04	16.13	0.22	23.28	15.81	-0.00
111.5	23.16	16.31	0.22	23.40	15.99	-0.00
112.0	23.27	16.48	0.22	23.51	16.16	-0.00
112.5	23.34	16.68	0.22	23.89	16.36	-0.00
113.0	23.53	16.89	0.22	23.78	16.56	-0.00
INBOARD ENGINE CUTOFF SIGNAL						
113.490	23.64	17.09	0.23	23.89	16.75	-0.00
113.5	23.64	17.09	0.23	23.90	16.76	-0.00
BEGIN INBOARD ENGINE THRUST DECAY						
113.680	23.68	17.17	0.23	23.94	16.84	-0.00
114.0	13.98	6.25	0.18	14.16	5.99	-0.00
114.5	13.87	6.13	0.18	14.05	5.87	-0.00
115.0	13.78	6.03	0.18	13.96	5.77	-0.00
115.5	13.70	5.94	0.18	13.88	5.67	-0.00
END INBOARD ENGINE THRUST DECAY						
115.540	13.69	5.93	0.18	13.87	5.67	-0.00
116.0	13.63	5.87	0.18	13.81	5.60	-0.00
116.5	13.57	5.81	0.18	13.75	5.54	-0.00
117.0	13.53	5.77	0.18	13.71	5.50	-0.00
117.5	13.51	5.75	0.18	13.69	5.48	-0.00
118.0	13.49	5.74	0.18	13.67	5.47	-0.00
118.5	13.50	5.75	0.18	13.68	5.48	-0.00
119.0	13.51	5.76	0.18	13.69	5.49	-0.00
119.5	13.53	5.80	0.18	13.72	5.53	-0.00
120.0	13.58	5.86	0.18	13.76	5.58	-0.00
120.5	13.63	5.92	0.19	13.81	5.64	-0.00
121.0	13.70	6.01	0.19	13.88	5.73	0.00
BEGIN OUTBOARD ENGINE THRUST DECAY						
121.100	13.71	6.03	0.19	13.90	5.75	-0.00
OUTBOARD ENGINE CUTOFF SIGNAL						
121.120	12.37	5.51	0.19	12.55	5.24	0.01
MAXIMUM EARTH-FIXED VELOCITY						
121.500	7.01	-2.54	0.15	7.13	-2.77	0.00

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
122.0	1.22	-8.21	0.12				1.29	-8.40		0.00		
122.5	0.47	-8.87	0.11				0.54	-9.05		-0.00		
123.0	-0.21	-9.47	0.11				-0.14	-9.64		0.00		
END ØUTBOARD ENGINE THRUST DECAY												
123.350	-0.21	-9.46	0.11				-0.14	-9.64		-0.00		
123.5	-0.21	-9.46	0.11				-0.14	-9.64		-0.00		
124.0	-0.21	-9.46	0.11				-0.14	-9.64		-0.00		
124.5	-0.21	-9.46	0.11				-0.15	-9.63		0.00		
125.0	-0.21	-9.46	0.11				-0.15	-9.63		0.00		
RETRØ RØCKET IGNITION												
125.460	-0.21	-9.46	0.11				-0.14	-9.63		0.00		
125.5	-0.20	-9.46	0.11				-0.14	-9.64		0.00		
126.0	-2.94	-12.41	0.09				-2.90	-12.56		0.00		
126.5	-2.93	-12.42	0.09				-2.89	-12.57		0.00		
127.0	-2.93	-12.41	0.09				-2.89	-12.57		0.00		
127.5	-1.58	-10.92	0.10				-1.53	-11.09		0.00		
RETRØ RØCKET BURNØUT												
127.600	-0.96	-10.11	0.10				-0.91	-10.28		0.00		
128.0	-0.21	-9.45	0.11				-0.15	-9.62		0.00		
128.5	-0.21	-9.45	0.11				-0.15	-9.62		0.00		
129.0	-0.21	-9.45	0.11				-0.16	-9.62		0.00		
129.5	-0.21	-9.44	0.11				-0.16	-9.62		0.00		
130.0	-0.21	-9.44	0.11				-0.16	-9.62		0.00		
130.5	-0.21	-9.44	0.11				-0.16	-9.61		0.00		
131.0	-0.21	-9.44	0.11				-0.16	-9.61		0.00		
131.5	-0.21	-9.44	0.11				-0.16	-9.61		0.00		
132.0	-0.21	-9.44	0.11				-0.16	-9.61		0.00		
132.5	-0.21	-9.43	0.11				-0.16	-9.61		0.00		
133.0	-0.21	-9.43	0.11				-0.16	-9.61		0.00		
133.5	-0.22	-9.42	0.28				-0.17	-9.59		0.17		
134.0	-0.17	-9.41	0.40				-0.12	-9.58		0.30		
134.5	-0.14	-9.45	0.42				-0.10	-9.62		0.31		
135.0	-0.18	-9.45	0.27				-0.14	-9.63		0.17		
135.5	-0.33	-9.43	-0.01				-0.29	-9.60		-0.11		
136.0	-0.35	-9.30	-0.23				-0.31	-9.47		-0.33		
136.5	-0.27	-9.37	-0.15				-0.23	-9.54		-0.25		
137.0	-0.11	-9.55	0.04				-0.07	-9.72		-0.06		

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
137.5	-0.13	-9.49	0.11	-0.09	-9.66	0.01
138.0	-0.33	-9.30	0.05	-0.29	-9.47	-0.06
138.5	-0.54	-9.21	-0.01	-0.50	-9.38	-0.11
139.0	-0.36	-9.26	0.08	-0.32	-9.43	-0.02
139.5	-0.12	-9.47	0.24	-0.09	-9.65	0.14
140.0	0.10	-9.64	0.28	0.13	-9.81	0.18
140.5	0.02	-9.58	0.17	0.06	-9.75	0.07
141.0	-0.24	-9.42	-0.06	-0.20	-9.59	-0.16
141.5	-0.54	-9.24	-0.21	-0.51	-9.41	-0.31
142.0	-0.53	-9.09	-0.12	-0.49	-9.26	-0.22
142.5	-0.36	-9.36	0.11	-0.33	-9.53	0.01
143.0	-0.04	-9.48	0.23	-0.01	-9.66	0.13
143.5	-0.01	-9.61	0.20	0.02	-9.78	0.09
144.0	-0.12	-9.47	0.07	-0.10	-9.64	-0.03
144.5	-0.24	-9.36	0.13	-0.22	-9.53	0.03
145.0	-0.29	-9.37	0.18	-0.27	-9.54	0.08
145.5	-0.22	-9.34	0.20	-0.19	-9.51	0.10
146.0	-0.18	-9.40	0.23	-0.16	-9.57	0.13
146.5	-0.19	-9.35	0.19	-0.16	-9.53	0.09
147.0	-0.21	-9.41	0.18	-0.19	-9.58	0.08
147.5	-0.21	-9.35	0.12	-0.19	-9.52	0.02
148.0	-0.18	-9.42	0.03	-0.16	-9.59	-0.07
148.5	-0.19	-9.55	0.00	-0.17	-9.72	-0.10
149.0	-0.12	-9.44	0.06	-0.10	-9.61	-0.04
149.5	-0.22	-9.43	0.17	-0.20	-9.61	0.08
150.0	-0.22	-9.27	0.21	-0.20	-9.44	0.11
150.5	-0.22	-9.38	0.10	-0.20	-9.55	0.00
151.0	-0.22	-9.38	0.10	-0.20	-9.55	0.00
151.5	-0.22	-9.38	0.10	-0.21	-9.55	0.00
152.0	-0.22	-9.38	0.10	-0.21	-9.55	0.00
152.5	-0.22	-9.38	0.10	-0.21	-9.55	0.00
153.0	-0.22	-9.38	0.10	-0.21	-9.55	0.00
153.5	-0.22	-9.38	0.10	-0.21	-9.55	0.00
154.0	-0.22	-9.37	0.10	-0.21	-9.55	0.00
154.5	-0.22	-9.37	0.10	-0.21	-9.54	0.00
155.0	-0.22	-9.37	0.10	-0.21	-9.54	0.00
155.5	-0.22	-9.37	0.10	-0.21	-9.54	0.00
156.0	-0.22	-9.37	0.10	-0.22	-9.54	0.00
156.5	-0.22	-9.37	0.10	-0.22	-9.54	0.00
157.0	-0.22	-9.37	0.10	-0.22	-9.54	0.00

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
157.5	-0.22	-9.37	0.10	-0.22	-9.54	0.00						
158.0	-0.22	-9.36	0.10	-0.22	-9.54	0.00						
158.5	-0.22	-9.36	0.10	-0.22	-9.53	0.00						
159.0	-0.22	-9.36	0.10	-0.22	-9.53	0.00						
159.5	-0.23	-9.36	0.10	-0.22	-9.53	0.00						
160.0	-0.23	-9.36	0.10	-0.22	-9.53	0.00						
160.5	-0.23	-9.36	0.10	-0.23	-9.53	0.00						
161.0	-0.23	-9.36	0.10	-0.23	-9.53	0.00						
161.5	-0.23	-9.36	0.10	-0.23	-9.53	0.00						
162.0	-0.23	-9.35	0.10	-0.23	-9.53	0.00						
162.5	-0.23	-9.35	0.10	-0.23	-9.52	0.00						
163.0	-0.23	-9.35	0.10	-0.23	-9.52	0.00						
163.5	-0.23	-9.35	0.10	-0.23	-9.52	0.00						
164.0	-0.23	-9.35	0.10	-0.23	-9.52	0.00						
164.5	-0.23	-9.35	0.10	-0.23	-9.52	0.00						
165.0	-0.23	-9.35	0.10	-0.24	-9.52	0.00						
165.5	-0.23	-9.35	0.10	-0.24	-9.52	0.00						
166.0	-0.23	-9.35	0.10	-0.24	-9.52	0.00						
166.5	-0.23	-9.34	0.10	-0.24	-9.52	0.00						
167.0	-0.23	-9.34	0.10	-0.24	-9.51	0.00						
167.5	-0.23	-9.34	0.10	-0.24	-9.51	0.00						
168.0	-0.23	-9.34	0.10	-0.24	-9.51	0.00						
168.5	-0.23	-9.34	0.10	-0.24	-9.51	0.00						
169.0	-0.23	-9.34	0.10	-0.24	-9.51	0.00						
169.5	-0.23	-9.34	0.10	-0.25	-9.51	0.00						
170.0	-0.23	-9.34	0.10	-0.25	-9.51	0.00						
170.5	-0.23	-9.34	0.10	-0.25	-9.51	0.00						
171.0	-0.23	-9.34	0.10	-0.25	-9.51	0.01						
171.5	-0.23	-9.33	0.10	-0.25	-9.50	0.01						
172.0	-0.23	-9.33	0.10	-0.25	-9.50	0.01						
172.5	-0.23	-9.33	0.10	-0.25	-9.50	0.01						
173.0	-0.23	-9.33	0.10	-0.25	-9.50	0.01						
173.5	-0.23	-9.33	0.10	-0.25	-9.50	0.01						
174.0	-0.23	-9.33	0.09	-0.26	-9.50	0.01						
174.5	-0.23	-9.33	0.09	-0.26	-9.50	0.01						
175.0	-0.23	-9.33	0.09	-0.26	-9.50	0.01						
175.5	-0.23	-9.33	0.09	-0.26	-9.50	0.01						
176.0	-0.23	-9.33	0.09	-0.26	-9.50	0.01						
176.5	-0.23	-9.32	0.09	-0.26	-9.49	0.01						
177.0	-0.23	-9.32	0.09	-0.26	-9.49	0.01						

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X		Y		Z		X		Y		Z	
	M/SEC	SQ	M/SEC	SQ	M/SEC	SQ	M/SEC	SQ	M/SEC	SQ	M/SEC	SQ
177.5	-0.23		-9.32		0.09		-0.26		-9.49		0.01	
178.0	-0.23		-9.32		0.09		-0.26		-9.49		0.01	
178.5	-0.23		-9.32		0.09		-0.27		-9.49		0.01	
179.0	-0.23		-9.32		0.09		-0.27		-9.49		0.01	
179.5	-0.23		-9.32		0.09		-0.27		-9.49		0.01	
180.0	-0.23		-9.32		0.09		-0.27		-9.49		0.01	
180.5	-0.23		-9.32		0.09		-0.27		-9.49		0.01	
181.0	-0.24		-9.32		0.09		-0.27		-9.49		0.01	
181.5	-0.24		-9.32		0.09		-0.27		-9.48		0.01	
182.0	-0.24		-9.31		0.09		-0.27		-9.48		0.01	
182.5	-0.24		-9.31		0.09		-0.27		-9.48		0.01	
183.0	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
183.5	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
184.0	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
184.5	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
185.0	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
185.5	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
186.0	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
186.5	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
187.0	-0.24		-9.31		0.09		-0.28		-9.48		0.01	
187.5	-0.24		-9.31		0.09		-0.29		-9.47		0.01	
188.0	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
188.5	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
189.0	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
189.5	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
190.0	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
190.5	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
191.0	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
191.5	-0.24		-9.30		0.09		-0.29		-9.47		0.01	
192.0	-0.24		-9.30		0.09		-0.30		-9.47		0.01	
192.5	-0.24		-9.30		0.09		-0.30		-9.47		0.01	
193.0	-0.24		-9.30		0.09		-0.30		-9.47		0.01	
193.5	-0.24		-9.30		0.09		-0.30		-9.46		0.01	
194.0	-0.24		-9.30		0.09		-0.30		-9.46		0.01	
194.5	-0.24		-9.29		0.09		-0.30		-9.46		0.01	
195.0	-0.24		-9.29		0.09		-0.30		-9.46		0.01	
195.5	-0.24		-9.29		0.09		-0.30		-9.46		0.01	
196.0	-0.24		-9.29		0.09		-0.30		-9.46		0.01	
196.5	-0.24		-9.29		0.09		-0.31		-9.46		0.01	
197.0	-0.24		-9.29		0.09		-0.31		-9.46		0.01	

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ
197.5	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
198.0	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
198.5	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
199.0	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
199.5	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
200.0	-0.24	-9.29	0.09	-0.31	-9.46	0.01						
200.5	-0.24	-9.29	0.09	-0.31	-9.45	0.01						
201.0	-0.24	-9.29	0.09	-0.32	-9.45	0.01						
201.5	-0.24	-9.29	0.09	-0.32	-9.45	0.01						
202.0	-0.24	-9.28	0.09	-0.32	-9.45	0.01						
202.5	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
203.0	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
203.5	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
204.0	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
204.5	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
205.0	-0.25	-9.28	0.09	-0.32	-9.45	0.01						
205.5	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
206.0	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
206.5	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
207.0	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
207.5	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
208.0	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
208.5	-0.25	-9.28	0.09	-0.33	-9.45	0.01						
209.0	-0.25	-9.28	0.09	-0.33	-9.44	0.01						
209.5	-0.25	-9.28	0.09	-0.33	-9.44	0.01						
210.0	-0.25	-9.28	0.09	-0.34	-9.44	0.01						
210.5	-0.25	-9.28	0.09	-0.34	-9.44	0.01						
211.0	-0.25	-9.28	0.09	-0.34	-9.44	0.01						
211.5	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
212.0	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
212.5	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
213.0	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
213.5	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
214.0	-0.25	-9.27	0.09	-0.34	-9.44	0.01						
214.5	-0.25	-9.27	0.09	-0.35	-9.44	0.01						
215.0	-0.25	-9.27	0.09	-0.35	-9.44	0.01						
215.5	-0.25	-9.27	0.08	-0.35	-9.44	0.01						
216.0	-0.25	-9.27	0.08	-0.35	-9.44	0.01						
216.5	-0.25	-9.27	0.08	-0.35	-9.44	0.01						
217.0	-0.25	-9.27	0.08	-0.35	-9.44	0.01						

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
217.5	-0.25	-9.27	0.08	-0.35	-9.44	0.01
218.0	-0.25	-9.27	0.08	-0.35	-9.44	0.01
218.5	-0.25	-9.27	0.08	-0.35	-9.44	0.01
219.0	-0.25	-9.27	0.08	-0.36	-9.43	0.01
219.5	-0.25	-9.27	0.08	-0.36	-9.43	0.01
220.0	-0.25	-9.27	0.08	-0.36	-9.43	0.01
220.5	-0.25	-9.27	0.08	-0.36	-9.43	0.01
221.0	-0.25	-9.27	0.08	-0.36	-9.43	0.01
221.5	-0.25	-9.27	0.08	-0.36	-9.43	0.01
222.0	-0.25	-9.27	0.08	-0.36	-9.43	0.01
222.5	-0.25	-9.27	0.08	-0.36	-9.43	0.01
223.0	-0.25	-9.27	0.08	-0.36	-9.43	0.01
223.5	-0.25	-9.26	0.08	-0.37	-9.43	0.01
224.0	-0.26	-9.26	0.08	-0.37	-9.43	0.01
224.5	-0.26	-9.26	0.08	-0.37	-9.43	0.01
225.0	-0.26	-9.26	0.08	-0.37	-9.43	0.01
225.5	-0.26	-9.26	0.08	-0.37	-9.43	0.01
226.0	-0.26	-9.26	0.08	-0.37	-9.43	0.01
226.5	-0.26	-9.26	0.08	-0.37	-9.43	0.01
227.0	-0.26	-9.26	0.08	-0.37	-9.43	0.01
227.5	-0.26	-9.26	0.08	-0.37	-9.43	0.01
228.0	-0.26	-9.26	0.08	-0.38	-9.43	0.01
228.5	-0.26	-9.26	0.08	-0.38	-9.43	0.01
229.0	-0.26	-9.26	0.08	-0.38	-9.43	0.01
229.5	-0.26	-9.26	0.08	-0.38	-9.43	0.01
230.0	-0.26	-9.26	0.08	-0.38	-9.43	0.01
230.5	-0.26	-9.26	0.08	-0.38	-9.43	0.01
231.0	-0.26	-9.26	0.08	-0.38	-9.43	0.01
231.5	-0.26	-9.26	0.08	-0.38	-9.43	0.01
232.0	-0.26	-9.26	0.08	-0.38	-9.43	0.01
232.5	-0.26	-9.26	0.08	-0.39	-9.43	0.01
233.0	-0.26	-9.26	0.08	-0.39	-9.43	0.01
233.5	-0.26	-9.26	0.08	-0.39	-9.43	0.01
234.0	-0.26	-9.26	0.08	-0.39	-9.43	0.01
234.5	-0.26	-9.26	0.08	-0.39	-9.42	0.01
235.0	-0.26	-9.26	0.08	-0.39	-9.42	0.01
235.5	-0.26	-9.26	0.08	-0.39	-9.42	0.01
236.0	-0.26	-9.26	0.08	-0.39	-9.42	0.01
236.5	-0.26	-9.26	0.08	-0.39	-9.42	0.01
237.0	-0.26	-9.26	0.08	-0.40	-9.42	0.01

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
237.5	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
238.0	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
238.5	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
239.0	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
239.5	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
240.0	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
240.5	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
241.0	-0.26		-9.26		0.08		-0.40		-9.42		0.01	
241.5	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
242.0	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
242.5	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
243.0	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
243.5	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
244.0	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
244.5	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
245.0	-0.26		-9.26		0.08		-0.41		-9.42		0.01	
245.5	-0.27		-9.26		0.08		-0.41		-9.42		0.01	
246.0	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
246.5	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
247.0	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
247.5	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
APEX												
247.799	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
248.0	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
248.5	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
249.0	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
249.5	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
250.0	-0.27		-9.26		0.08		-0.42		-9.42		0.01	
250.5	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
251.0	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
251.5	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
252.0	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
252.5	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
253.0	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
253.5	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
254.0	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
254.5	-0.27		-9.26		0.08		-0.43		-9.42		0.01	
255.0	-0.27		-9.26		0.08		-0.44		-9.42		0.01	
255.5	-0.27		-9.26		0.07		-0.44		-9.42		0.01	

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
256.0	-0.27	-9.26	0.07	-0.44	-9.42	0.01
256.5	-0.27	-9.26	0.07	-0.44	-9.42	0.01
257.0	-0.27	-9.26	0.07	-0.44	-9.42	0.01
257.5	-0.27	-9.26	0.07	-0.44	-9.42	0.01
258.0	-0.27	-9.26	0.07	-0.44	-9.42	0.01
258.5	-0.27	-9.26	0.07	-0.44	-9.42	0.01
259.0	-0.27	-9.26	0.07	-0.44	-9.42	0.01
259.5	-0.27	-9.26	0.07	-0.45	-9.42	0.01
260.0	-0.27	-9.26	0.07	-0.45	-9.42	0.01
260.5	-0.27	-9.26	0.07	-0.45	-9.42	0.01
261.0	-0.27	-9.26	0.07	-0.45	-9.42	0.01
261.5	-0.27	-9.26	0.07	-0.45	-9.42	0.01
262.0	-0.27	-9.26	0.07	-0.45	-9.42	0.01
262.5	-0.27	-9.26	0.07	-0.45	-9.42	0.01
263.0	-0.27	-9.26	0.07	-0.45	-9.42	0.01
263.5	-0.27	-9.26	0.07	-0.46	-9.42	0.01
264.0	-0.27	-9.26	0.07	-0.46	-9.42	0.01
264.5	-0.27	-9.26	0.07	-0.46	-9.42	0.02
265.0	-0.27	-9.26	0.07	-0.46	-9.42	0.02
265.5	-0.27	-9.26	0.07	-0.46	-9.42	0.02
266.0	-0.28	-9.26	0.07	-0.46	-9.42	0.02
266.5	-0.28	-9.26	0.07	-0.46	-9.42	0.02
267.0	-0.28	-9.26	0.07	-0.46	-9.42	0.02
267.5	-0.28	-9.26	0.07	-0.46	-9.42	0.02
268.0	-0.28	-9.26	0.07	-0.47	-9.42	0.02
268.5	-0.28	-9.26	0.07	-0.47	-9.42	0.02
269.0	-0.28	-9.26	0.07	-0.47	-9.42	0.02
269.5	-0.28	-9.26	0.07	-0.47	-9.43	0.02
270.0	-0.28	-9.26	0.07	-0.47	-9.43	0.02
270.5	-0.28	-9.26	0.07	-0.47	-9.43	0.02
271.0	-0.28	-9.26	0.07	-0.47	-9.43	0.02
271.5	-0.28	-9.26	0.07	-0.47	-9.43	0.02
272.0	-0.28	-9.26	0.07	-0.47	-9.43	0.02
272.5	-0.28	-9.26	0.07	-0.48	-9.43	0.02
273.0	-0.28	-9.26	0.07	-0.48	-9.43	0.02
273.5	-0.28	-9.27	0.07	-0.48	-9.43	0.02
274.0	-0.28	-9.27	0.07	-0.48	-9.43	0.02
274.5	-0.28	-9.27	0.07	-0.48	-9.43	0.02
275.0	-0.28	-9.27	0.07	-0.48	-9.43	0.02
275.5	-0.28	-9.27	0.07	-0.48	-9.43	0.02

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ
276.0	-0.28	-9.27	0.07	-0.48	-9.43	0.02						
276.5	-0.28	-9.27	0.07	-0.48	-9.43	0.02						
277.0	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
277.5	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
278.0	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
278.5	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
279.0	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
279.5	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
280.0	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
280.5	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
281.0	-0.28	-9.27	0.07	-0.49	-9.43	0.02						
281.5	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
282.0	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
282.5	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
283.0	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
283.5	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
284.0	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
284.5	-0.28	-9.27	0.07	-0.50	-9.43	0.02						
285.0	-0.28	-9.27	0.07	-0.50	-9.44	0.02						
285.5	-0.29	-9.27	0.07	-0.51	-9.44	0.02						
286.0	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
286.5	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
287.0	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
287.5	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
288.0	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
288.5	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
289.0	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
289.5	-0.29	-9.28	0.07	-0.51	-9.44	0.02						
290.0	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
290.5	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
291.0	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
291.5	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
292.0	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
292.5	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
293.0	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
293.5	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
294.0	-0.29	-9.28	0.07	-0.52	-9.44	0.02						
294.5	-0.29	-9.28	0.06	-0.53	-9.44	0.02						
295.0	-0.29	-9.29	0.06	-0.53	-9.45	0.02						
295.5	-0.29	-9.29	0.06	-0.53	-9.45	0.02						

TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
296.0	-0.29	-9.29	0.06	-0.53	-9.45	0.02
296.5	-0.29	-9.29	0.06	-0.53	-9.45	0.02
297.0	-0.29	-9.29	0.06	-0.53	-9.45	0.02
297.5	-0.29	-9.29	0.06	-0.53	-9.45	0.02
298.0	-0.29	-9.29	0.06	-0.53	-9.45	0.02
298.5	-0.29	-9.29	0.06	-0.54	-9.45	0.02
299.0	-0.29	-9.29	0.06	-0.54	-9.45	0.02
299.5	-0.29	-9.29	0.06	-0.54	-9.45	0.02
300.0	-0.29	-9.29	0.06	-0.54	-9.45	0.02
300.5	-0.29	-9.29	0.06	-0.54	-9.45	0.02
301.0	-0.29	-9.29	0.06	-0.54	-9.45	0.02
301.5	-0.29	-9.29	0.06	-0.54	-9.45	0.02
302.0	-0.29	-9.29	0.06	-0.54	-9.45	0.02
302.5	-0.29	-9.30	0.06	-0.54	-9.45	0.02
303.0	-0.29	-9.30	0.06	-0.55	-9.46	0.02
303.5	-0.29	-9.30	0.06	-0.55	-9.46	0.02
304.0	-0.29	-9.30	0.06	-0.55	-9.46	0.02
304.5	-0.30	-9.30	0.06	-0.55	-9.46	0.02
305.0	-0.30	-9.30	0.06	-0.55	-9.46	0.02
305.5	-0.30	-9.30	0.06	-0.55	-9.46	0.02
306.0	-0.30	-9.30	0.06	-0.55	-9.46	0.02
306.5	-0.30	-9.30	0.06	-0.55	-9.46	0.02
307.0	-0.30	-9.30	0.06	-0.56	-9.46	0.02
307.5	-0.30	-9.30	0.06	-0.56	-9.46	0.02
308.0	-0.30	-9.30	0.06	-0.56	-9.46	0.02
308.5	-0.30	-9.30	0.06	-0.56	-9.46	0.02
309.0	-0.30	-9.31	0.06	-0.56	-9.46	0.02
309.5	-0.30	-9.31	0.06	-0.56	-9.46	0.02
310.0	-0.30	-9.31	0.06	-0.56	-9.46	0.02
310.5	-0.30	-9.31	0.06	-0.56	-9.47	0.02
311.0	-0.30	-9.31	0.06	-0.56	-9.47	0.02
311.5	-0.30	-9.31	0.06	-0.57	-9.47	0.02
312.0	-0.30	-9.31	0.06	-0.57	-9.47	0.02
312.5	-0.30	-9.31	0.06	-0.57	-9.47	0.02
313.0	-0.30	-9.31	0.06	-0.57	-9.47	0.02
313.5	-0.30	-9.31	0.06	-0.57	-9.47	0.02
314.0	-0.30	-9.31	0.06	-0.57	-9.47	0.02
314.5	-0.30	-9.31	0.06	-0.57	-9.47	0.02
315.0	-0.30	-9.32	0.06	-0.57	-9.47	0.02
315.5	-0.30	-9.32	0.06	-0.58	-9.47	0.02

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
316.0	-0.30	-9.32	0.06	-0.58	-9.47	0.02						
316.5	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
317.0	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
317.5	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
318.0	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
318.5	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
319.0	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
319.5	-0.30	-9.32	0.06	-0.58	-9.48	0.02						
320.0	-0.30	-9.32	0.06	-0.59	-9.48	0.02						
320.5	-0.30	-9.33	0.06	-0.59	-9.48	0.02						
321.0	-0.30	-9.33	0.06	-0.59	-9.48	0.02						
321.5	-0.30	-9.33	0.06	-0.59	-9.48	0.02						
322.0	-0.31	-9.33	0.06	-0.59	-9.49	0.02						
322.5	-0.31	-9.33	0.06	-0.59	-9.49	0.02						
323.0	-0.31	-9.33	0.06	-0.59	-9.49	0.02						
323.5	-0.31	-9.33	0.06	-0.59	-9.49	0.02						
324.0	-0.31	-9.33	0.06	-0.60	-9.49	0.02						
324.5	-0.31	-9.33	0.06	-0.60	-9.49	0.02						
325.0	-0.31	-9.33	0.06	-0.60	-9.49	0.02						
325.5	-0.31	-9.34	0.06	-0.60	-9.49	0.02						
326.0	-0.31	-9.34	0.06	-0.60	-9.49	0.02						
326.5	-0.31	-9.34	0.06	-0.60	-9.49	0.02						
327.0	-0.31	-9.34	0.06	-0.60	-9.49	0.02						
327.5	-0.31	-9.34	0.06	-0.60	-9.50	0.02						
328.0	-0.31	-9.34	0.06	-0.61	-9.50	0.02						
328.5	-0.31	-9.34	0.06	-0.61	-9.50	0.02						
329.0	-0.31	-9.34	0.06	-0.61	-9.50	0.02						
329.5	-0.31	-9.34	0.06	-0.61	-9.50	0.02						
330.0	-0.31	-9.34	0.06	-0.61	-9.50	0.02						
330.5	-0.31	-9.35	0.06	-0.61	-9.50	0.02						
331.0	-0.31	-9.35	0.06	-0.61	-9.50	0.02						
331.5	-0.31	-9.35	0.06	-0.61	-9.50	0.02						
332.0	-0.31	-9.35	0.05	-0.62	-9.50	0.02						
332.5	-0.31	-9.35	0.05	-0.62	-9.51	0.02						
333.0	-0.31	-9.35	0.05	-0.62	-9.51	0.02						
333.5	-0.31	-9.35	0.05	-0.62	-9.51	0.02						
334.0	-0.31	-9.35	0.05	-0.62	-9.51	0.02						
334.5	-0.31	-9.35	0.05	-0.62	-9.51	0.02						
335.0	-0.31	-9.36	0.05	-0.62	-9.51	0.02						
335.5	-0.31	-9.36	0.05	-0.62	-9.51	0.02						

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS			SPACE-FIXED-ACCELERATIONS		
	X M/SEC SEC	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
336.0	-0.31	-9.36	0.05	-0.62	-9.51	0.02
336.5	-0.31	-9.36	0.05	-0.63	-9.51	0.02
337.0	-0.31	-9.36	0.05	-0.63	-9.52	0.02
337.5	-0.31	-9.36	0.05	-0.63	-9.52	0.02
338.0	-0.31	-9.36	0.05	-0.63	-9.52	0.02
338.5	-0.32	-9.36	0.05	-0.63	-9.52	0.02
339.0	-0.32	-9.37	0.05	-0.63	-9.52	0.02
339.5	-0.32	-9.37	0.05	-0.63	-9.52	0.02
340.0	-0.32	-9.37	0.05	-0.63	-9.52	0.02
340.5	-0.32	-9.37	0.05	-0.64	-9.52	0.02
341.0	-0.32	-9.37	0.05	-0.64	-9.52	0.02
341.5	-0.32	-9.37	0.05	-0.64	-9.53	0.02
342.0	-0.32	-9.37	0.05	-0.64	-9.53	0.02
342.5	-0.32	-9.37	0.05	-0.64	-9.53	0.02
343.0	-0.32	-9.37	0.05	-0.64	-9.53	0.02
343.5	-0.32	-9.38	0.05	-0.64	-9.53	0.02
344.0	-0.32	-9.38	0.05	-0.64	-9.53	0.02
344.5	-0.32	-9.38	0.05	-0.65	-9.53	0.02
345.0	-0.32	-9.38	0.05	-0.65	-9.53	0.02
345.5	-0.32	-9.38	0.05	-0.65	-9.54	0.02
346.0	-0.32	-9.38	0.05	-0.65	-9.54	0.02
346.5	-0.32	-9.38	0.05	-0.65	-9.54	0.02
347.0	-0.32	-9.38	0.05	-0.65	-9.54	0.02
347.5	-0.32	-9.39	0.05	-0.65	-9.54	0.02
348.0	-0.32	-9.39	0.05	-0.66	-9.54	0.02
348.5	-0.32	-9.39	0.05	-0.66	-9.54	0.02
349.0	-0.32	-9.39	0.05	-0.66	-9.54	0.02
349.5	-0.32	-9.39	0.05	-0.66	-9.54	0.02
350.0	-0.32	-9.39	0.05	-0.66	-9.55	0.02
350.5	-0.32	-9.39	0.05	-0.66	-9.55	0.02
351.0	-0.32	-9.40	0.05	-0.66	-9.55	0.02
351.5	-0.32	-9.40	0.05	-0.66	-9.55	0.02
352.0	-0.32	-9.40	0.05	-0.67	-9.55	0.02
352.5	-0.33	-9.40	0.05	-0.67	-9.55	0.02
353.0	-0.33	-9.40	0.05	-0.67	-9.55	0.03
353.5	-0.33	-9.40	0.05	-0.67	-9.55	0.03
354.0	-0.33	-9.40	0.05	-0.67	-9.56	0.03
354.5	-0.33	-9.40	0.05	-0.67	-9.56	0.03
355.0	-0.33	-9.41	0.05	-0.67	-9.56	0.03
355.5	-0.33	-9.41	0.05	-0.68	-9.56	0.03

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
356.0	-0.33	-9.41	0.05	-0.68	-9.56	0.03						
356.5	-0.33	-9.41	0.05	-0.68	-9.56	0.03						
357.0	-0.33	-9.41	0.05	-0.68	-9.56	0.03						
357.5	-0.33	-9.41	0.05	-0.68	-9.56	0.03						
358.0	-0.33	-9.41	0.05	-0.68	-9.56	0.03						
358.5	-0.33	-9.41	0.05	-0.68	-9.57	0.03						
359.0	-0.33	-9.41	0.05	-0.69	-9.57	0.03						
359.5	-0.33	-9.42	0.05	-0.69	-9.57	0.03						
360.0	-0.33	-9.42	0.05	-0.69	-9.57	0.03						
360.5	-0.33	-9.42	0.05	-0.69	-9.57	0.03						
361.0	-0.34	-9.42	0.05	-0.69	-9.57	0.03						
361.5	-0.34	-9.42	0.05	-0.69	-9.57	0.03						
362.0	-0.34	-9.42	0.05	-0.70	-9.57	0.03						
362.5	-0.34	-9.42	0.05	-0.70	-9.57	0.03						
363.0	-0.34	-9.42	0.05	-0.70	-9.57	0.03						
363.5	-0.34	-9.42	0.05	-0.70	-9.58	0.03						
364.0	-0.34	-9.42	0.05	-0.70	-9.58	0.03						
364.5	-0.34	-9.43	0.05	-0.71	-9.58	0.03						
365.0	-0.34	-9.43	0.05	-0.71	-9.58	0.03						
365.5	-0.34	-9.43	0.05	-0.71	-9.58	0.03						
366.0	-0.35	-9.43	0.05	-0.71	-9.58	0.03						
366.5	-0.35	-9.43	0.05	-0.71	-9.58	0.03						
367.0	-0.35	-9.43	0.04	-0.72	-9.58	0.03						
367.5	-0.35	-9.43	0.04	-0.72	-9.58	0.03						
368.0	-0.35	-9.43	0.04	-0.72	-9.58	0.03						
368.5	-0.35	-9.43	0.04	-0.72	-9.58	0.03						
369.0	-0.35	-9.43	0.04	-0.73	-9.58	0.03						
369.5	-0.36	-9.43	0.04	-0.73	-9.58	0.03						
370.0	-0.36	-9.43	0.04	-0.73	-9.58	0.03						
370.5	-0.36	-9.43	0.04	-0.74	-9.58	0.03						
371.0	-0.36	-9.43	0.04	-0.74	-9.58	0.03						
371.5	-0.36	-9.43	0.04	-0.74	-9.58	0.03						
372.0	-0.37	-9.43	0.04	-0.74	-9.58	0.03						
372.5	-0.37	-9.43	0.04	-0.75	-9.58	0.03						
373.0	-0.37	-9.43	0.04	-0.75	-9.58	0.03						
373.5	-0.37	-9.43	0.04	-0.75	-9.57	0.03						
374.0	-0.38	-9.42	0.04	-0.76	-9.57	0.03						
374.5	-0.38	-9.42	0.04	-0.76	-9.57	0.03						
375.0	-0.38	-9.42	0.04	-0.77	-9.57	0.03						
375.5	-0.39	-9.42	0.04	-0.77	-9.57	0.03						

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ		X M/SEC SQ		Y M/SEC SQ		Z M/SEC SQ	
376.0	-0.39		-9.42		0.04		-0.77		-9.57		0.03	
376.5	-0.39		-9.42		0.04		-0.78		-9.56		0.03	
377.0	-0.40		-9.41		0.04		-0.78		-9.56		0.03	
377.5	-0.40		-9.41		0.04		-0.79		-9.55		0.03	
378.0	-0.41		-9.41		0.04		-0.79		-9.55		0.03	
378.5	-0.41		-9.40		0.04		-0.80		-9.55		0.03	
379.0	-0.42		-9.40		0.04		-0.81		-9.54		0.03	
379.5	-0.42		-9.39		0.04		-0.81		-9.54		0.03	
380.0	-0.43		-9.39		0.04		-0.82		-9.53		0.03	
380.5	-0.44		-9.38		0.04		-0.83		-9.53		0.03	
381.0	-0.45		-9.37		0.04		-0.84		-9.52		0.03	
381.5	-0.45		-9.36		0.04		-0.85		-9.51		0.03	
382.0	-0.46		-9.36		0.04		-0.86		-9.50		0.03	
382.5	-0.48		-9.34		0.04		-0.87		-9.49		0.03	
383.0	-0.49		-9.33		0.04		-0.88		-9.47		0.03	
383.5	-0.50		-9.31		0.04		-0.90		-9.46		0.03	
384.0	-0.52		-9.30		0.04		-0.91		-9.44		0.03	
384.5	-0.53		-9.28		0.04		-0.93		-9.43		0.03	
385.0	-0.55		-9.26		0.04		-0.94		-9.41		0.03	
385.5	-0.57		-9.24		0.03		-0.96		-9.39		0.03	
386.0	-0.59		-9.22		0.03		-0.98		-9.36		0.03	
386.5	-0.61		-9.20		0.03		-1.01		-9.34		0.03	
387.0	-0.63		-9.17		0.03		-1.03		-9.31		0.02	
387.5	-0.66		-9.13		0.03		-1.06		-9.28		0.02	
388.0	-0.69		-9.10		0.03		-1.09		-9.24		0.02	
388.5	-0.72		-9.06		0.03		-1.12		-9.20		0.02	
389.0	-0.76		-9.01		0.03		-1.16		-9.15		0.02	
389.5	-0.80		-8.96		0.03		-1.20		-9.10		0.02	
390.0	-0.85		-8.91		0.03		-1.24		-9.04		0.02	
390.5	-0.90		-8.84		0.03		-1.29		-8.98		0.02	
391.0	-0.96		-8.77		0.02		-1.35		-8.90		0.02	
391.5	-1.02		-8.69		0.02		-1.41		-8.82		0.02	
392.0	-1.09		-8.60		0.02		-1.48		-8.73		0.02	
392.5	-1.17		-8.50		0.02		-1.56		-8.63		0.02	
393.0	-1.26		-8.39		0.02		-1.64		-8.51		0.02	
393.5	-1.35		-8.26		0.01		-1.74		-8.39		0.01	
394.0	-1.46		-8.12		0.01		-1.85		-8.24		0.01	
394.5	-1.58		-7.96		0.01		-1.97		-8.08		0.01	
395.0	-1.72		-7.78		0.00		-2.10		-7.90		0.01	
395.5	-1.87		-7.58		0.00		-2.24		-7.69		0.01	

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TABLE VI

TIME SEC	EARTH-FIXED-ACCELERATIONS						SPACE-FIXED-ACCELERATIONS					
	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ	X M/SEC SQ	Y M/SEC SQ	Z M/SEC SQ
396.0	-2.04	-7.36	-0.00	-2.41	-7.46	0.00						
396.5	-2.23	-7.11	-0.01	-2.59	-7.21	0.00						
397.0	-2.44	-6.83	-0.01	-2.79	-6.93	-0.00						
397.5	-2.67	-6.52	-0.02	-3.01	-6.61	-0.01						
L0SS OF TELEMETRY												
397.796	-2.82	-6.32	-0.02	-3.16	-6.40	-0.01						

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
FIRST MOTION					
0.400	31.	0	0.000	28.52152	80.56135
0.5	31.	0	0.000	28.52152	80.56135
LIFT OFF SIGNAL					
0.580	31.	0	0.000	28.52152	80.56135
1.0	31.	0	0.000	28.52152	80.56135
1.5	33.	0	0.000	28.52152	80.56135
2.0	35.	0	0.000	28.52152	80.56135
2.5	39.	0	0.000	28.52152	80.56135
3.0	43.	0	0.000	28.52152	80.56135
3.5	48.	0	0.000	28.52152	80.56135
4.0	54.	0	0.000	28.52152	80.56135
4.5	62.	0	0.000	28.52152	80.56135
5.0	70.	0	0.000	28.52152	80.56135
5.5	79.	0	0.000	28.52152	80.56135
6.0	90.	0	0.000	28.52152	80.56136
6.5	101.	0	0.000	28.52152	80.56136
7.0	114.	1	0.000	28.52152	80.56136
7.5	127.	1	0.000	28.52152	80.56136
8.0	142.	1	0.001	28.52152	80.56136
8.5	158.	1	0.001	28.52152	80.56136
9.0	175.	1	0.001	28.52152	80.56137
9.5	193.	2	0.001	28.52152	80.56137
10.0	212.	2	0.001	28.52152	80.56137
10.5	233.	2	0.001	28.52151	80.56138
11.0	254.	3	0.001	28.52151	80.56138
11.5	277.	3	0.001	28.52151	80.56138
12.0	301.	3	0.002	28.52151	80.56138
12.5	326.	3	0.002	28.52151	80.56138
13.0	352.	3	0.002	28.52151	80.56138
13.5	380.	4	0.002	28.52150	80.56138
14.0	409.	4	0.002	28.52150	80.56138
14.5	439.	4	0.002	28.52150	80.56138
15.0	470.	4	0.002	28.52150	80.56138
15.5	503.	4	0.002	28.52149	80.56138
16.0	537.	4	0.002	28.52149	80.56137
16.5	572.	4	0.002	28.52149	80.56137
17.0	609.	4	0.002	28.52148	80.56136

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
17.5	647.	5	0.003	28.52148	80.56135
18.0	686.	6	0.003	28.52147	80.56134
18.5	726.	7	0.004	28.52147	80.56132
19.0	768.	8	0.004	28.52146	80.56130
19.5	811.	10	0.005	28.52146	80.56128
20.0	856.	12	0.006	28.52145	80.56126
20.5	902.	14	0.007	28.52145	80.56124
21.0	949.	17	0.009	28.52144	80.56121
21.5	998.	20	0.011	28.52143	80.56118
22.0	1048.	24	0.013	28.52142	80.56114
22.5	1100.	28	0.015	28.52141	80.56110
23.0	1153.	32	0.017	28.52140	80.56105
23.5	1208.	37	0.020	28.52140	80.56100
24.0	1264.	42	0.023	28.52139	80.56095
24.5	1322.	48	0.026	28.52137	80.56089
25.0	1381.	55	0.030	28.52136	80.56082
25.5	1442.	62	0.033	28.52135	80.56075
26.0	1504.	69	0.037	28.52134	80.56068
26.5	1568.	77	0.042	28.52133	80.56059
27.0	1633.	86	0.047	28.52131	80.56051
27.5	1700.	96	0.052	28.52130	80.56041
28.0	1768.	106	0.057	28.52128	80.56031
28.5	1838.	117	0.063	28.52127	80.56020
29.0	1910.	128	0.069	28.52125	80.56008
29.5	1983.	141	0.076	28.52123	80.55996
30.0	2058.	154	0.083	28.52121	80.55982
30.5	2135.	168	0.091	28.52119	80.55968
31.0	2213.	182	0.099	28.52117	80.55953
31.5	2293.	198	0.107	28.52115	80.55937
32.0	2374.	215	0.116	28.52113	80.55921
32.5	2457.	232	0.125	28.52110	80.55903
33.0	2542.	251	0.135	28.52108	80.55884
33.5	2628.	270	0.146	28.52106	80.55865
34.0	2716.	290	0.157	28.52103	80.55844
34.5	2806.	312	0.168	28.52100	80.55823
35.0	2897.	334	0.180	28.52098	80.55800
35.5	2990.	357	0.193	28.52095	80.55776
36.0	3085.	382	0.206	28.52092	80.55751
36.5	3182.	407	0.220	28.52089	80.55726
37.0	3280.	434	0.234	28.52085	80.55699

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
37.5	3380.	461	0.249	28.52082	80.55671
38.0	3482.	490	0.264	28.52078	80.55642
38.5	3586.	519	0.280	28.52074	80.55612
39.0	3692.	550	0.297	28.52070	80.55581
39.5	3799.	582	0.314	28.52066	80.55549
40.0	3909.	615	0.332	28.52062	80.55516
40.5	4020.	648	0.350	28.52057	80.55482
41.0	4133.	683	0.369	28.52053	80.55446
41.5	4249.	720	0.389	28.52048	80.55410
42.0	4365.	757	0.409	28.52043	80.55372
42.5	4484.	795	0.429	28.52038	80.55333
43.0	4605.	835	0.451	28.52033	80.55293
43.5	4728.	875	0.473	28.52028	80.55252
44.0	4853.	917	0.495	28.52022	80.55210
44.5	4980.	961	0.519	28.52017	80.55166
45.0	5109.	1005	0.543	28.52011	80.55121
45.5	5239.	1050	0.567	28.52005	80.55075
46.0	5372.	1097	0.592	28.51999	80.55028
46.5	5507.	1145	0.618	28.51993	80.54979
47.0	5644.	1194	0.645	28.51987	80.54930
47.5	5782.	1245	0.672	28.51980	80.54878
48.0	5923.	1297	0.700	28.51974	80.54826
48.5	6066.	1350	0.729	28.51967	80.54772
49.0	6211.	1405	0.758	28.51960	80.54717
49.5	6358.	1461	0.789	28.51952	80.54661
50.0	6507.	1518	0.820	28.51945	80.54603
<hr/>					
MACH ONE					
50.146	6551.	1535	0.829	28.51942	80.54586
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50.5	6658.	1576	0.851	28.51937	80.54544
51.0	6811.	1636	0.883	28.51929	80.54483
51.5	6965.	1698	0.917	28.51921	80.54421
52.0	7122.	1760	0.951	28.51912	80.54358
52.5	7281.	1825	0.985	28.51903	80.54293
53.0	7442.	1890	1.021	28.51895	80.54226
53.5	7604.	1958	1.057	28.51885	80.54158
54.0	7769.	2027	1.094	28.51876	80.54089
54.5	7935.	2097	1.132	28.51866	80.54017
55.0	8103.	2169	1.171	28.51857	80.53944
55.5	8274.	2243	1.211	28.51847	80.53870

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
56.0	8446.	2318	1.252	28.51836	80.53794
56.5	8620.	2395	1.293	28.51826	80.53716
57.0	8796.	2474	1.336	28.51815	80.53637
57.5	8975.	2555	1.379	28.51804	80.53556
58.0	9155.	2637	1.424	28.51792	80.53473
58.5	9338.	2721	1.469	28.51780	80.53388
59.0	9522.	2806	1.515	28.51767	80.53302
59.5	9709.	2894	1.563	28.51755	80.53213
60.0	9898.	2984	1.611	28.51741	80.53123
60.5	10089.	3075	1.660	28.51728	80.53031
61.0	10282.	3168	1.711	28.51715	80.52937
61.5	10478.	3264	1.762	28.51701	80.52841
62.0	10676.	3361	1.815	28.51687	80.52742
MAXIMUM DYNAMIC PRESSURE					
62.100	10716.	3381	1.825	28.51685	80.52723
62.5	10876.	3460	1.868	28.51674	80.52642
63.0	11078.	3562	1.923	28.51660	80.52540
63.5	11283.	3665	1.979	28.51645	80.52435
64.0	11490.	3771	2.036	28.51631	80.52329
64.5	11700.	3878	2.094	28.51616	80.52220
65.0	11912.	3988	2.153	28.51601	80.52109
65.5	12127.	4100	2.214	28.51585	80.51996
66.0	12344.	4214	2.275	28.51568	80.51881
66.5	12563.	4330	2.338	28.51551	80.51764
67.0	12786.	4449	2.402	28.51533	80.51645
67.5	13011.	4570	2.467	28.51516	80.51523
68.0	13238.	4692	2.534	28.51497	80.51399
68.5	13468.	4818	2.601	28.51479	80.51273
69.0	13701.	4945	2.670	28.51460	80.51145
69.5	13937.	5075	2.740	28.51441	80.51014
70.0	14176.	5208	2.812	28.51421	80.50880
70.5	14417.	5343	2.885	28.51401	80.50744
71.0	14661.	5480	2.959	28.51381	80.50605
71.5	14908.	5621	3.035	28.51360	80.50464
72.0	15158.	5764	3.112	28.51338	80.50320
72.5	15410.	5909	3.191	28.51316	80.50174
73.0	15666.	6057	3.271	28.51294	80.50024
73.5	15925.	6208	3.352	28.51271	80.49872
74.0	16186.	6362	3.435	28.51248	80.49718

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
74.5	16451.	6519	3.520	28.51224	80.49560
75.0	16719.	6678	3.606	28.51200	80.49399
75.5	16989.	6841	3.694	28.51175	80.49235
76.0	17263.	7007	3.783	28.51150	80.49068
76.5	17540.	7175	3.874	28.51124	80.48899
77.0	17820.	7347	3.967	28.51097	80.48725
77.5	18103.	7523	4.062	28.51070	80.48549
78.0	18389.	7701	4.158	28.51043	80.48369
78.5	18678.	7883	4.256	28.51015	80.48187
79.0	18971.	8068	4.356	28.50986	80.48000
79.5	19267.	8256	4.458	28.50957	80.47810
80.0	19566.	8448	4.562	28.50927	80.47617
80.5	19869.	8644	4.667	28.50897	80.47421
81.0	20174.	8843	4.775	28.50866	80.47220
81.5	20483.	9046	4.884	28.50834	80.47016
82.0	20796.	9253	4.996	28.50802	80.46808
82.5	21111.	9463	5.110	28.50769	80.46596
83.0	21430.	9678	5.226	28.50735	80.46380
83.5	21752.	9896	5.343	28.50701	80.46161
84.0	22078.	10118	5.463	28.50666	80.45937
84.5	22407.	10345	5.586	28.50631	80.45709
85.0	22740.	10575	5.710	28.50595	80.45478
85.5	23076.	10810	5.837	28.50558	80.45242
86.0	23415.	11048	5.966	28.50521	80.45002
86.5	23758.	11291	6.097	28.50482	80.44757
87.0	24105.	11538	6.230	28.50443	80.44509
87.5	24455.	11790	6.366	28.50404	80.44256
88.0	24809.	12046	6.504	28.50364	80.43998
88.5	25166.	12306	6.645	28.50322	80.43736
89.0	25527.	12571	6.788	28.50281	80.43470
89.5	25892.	12840	6.933	28.50238	80.43199
90.0	26260.	13114	7.081	28.50195	80.42924
90.5	26632.	13393	7.231	28.50151	80.42644
91.0	27008.	13676	7.384	28.50106	80.42359
91.5	27387.	13964	7.540	28.50060	80.42069
92.0	27771.	14257	7.698	28.50014	80.41775
92.5	28158.	14554	7.859	28.49967	80.41476
93.0	28549.	14856	8.022	28.49919	80.41172
93.5	28944.	15164	8.188	28.49870	80.40863
94.0	29343.	15476	8.356	28.49821	80.40549

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
94.5	29746.	15793	8.527	28.49770	80.40230
95.0	30152.	16115	8.701	28.49719	80.39906
95.5	30563.	16442	8.878	28.49667	80.39578
96.0	30978.	16774	9.057	28.49614	80.39243
96.5	31397.	17112	9.240	28.49560	80.38904
97.0	31820.	17454	9.425	28.49506	80.38560
97.5	32247.	17802	9.613	28.49450	80.38210
98.0	32678.	18156	9.803	28.49394	80.37855
98.5	33114.	18515	9.997	28.49336	80.37494
99.0	33553.	18879	10.194	28.49278	80.37128
99.5	33997.	19249	10.394	28.49219	80.36756
100.0	34445.	19625	10.596	28.49158	80.36378
100.5	34897.	20006	10.802	28.49097	80.35995
ENGINE NØ. 5 CUTOFF SIGNAL					
100.620	35024.	20114	10.860	28.49080	80.35887
BEGIN ENGINE NØ. 5 THRUST DECAY					
100.750	35124.	20199	10.906	28.49066	80.35801
101.0	35350.	20394	11.012	28.49036	80.35604
101.5	35810.	20786	11.224	28.48973	80.35210
102.0	36274.	21183	11.438	28.48909	80.34812
END ENGINE NØ. 5 THRUST DECAY					
102.430	36676.	21528	11.624	28.48854	80.34465
102.5	36742.	21585	11.655	28.48845	80.34408
103.0	37212.	21992	11.875	28.48779	80.33999
103.5	37687.	22404	12.097	28.48713	80.33585
104.0	38165.	22821	12.322	28.48646	80.33165
104.5	38646.	23244	12.550	28.48578	80.32741
105.0	39131.	23671	12.782	28.48509	80.32311
105.5	39620.	24105	13.015	28.48439	80.31876
106.0	40113.	24543	13.252	28.48368	80.31435
106.5	40609.	24987	13.492	28.48297	80.30989
107.0	41109.	25436	13.734	28.48224	80.30538
107.5	41612.	25890	13.980	28.48151	80.30081
108.0	42120.	26350	14.228	28.48077	80.29619
108.5	42632.	26816	14.479	28.48001	80.29152
109.0	43147.	27287	14.734	28.47925	80.28678
109.5	43666.	27763	14.991	28.47847	80.28200

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
110.0	44190.	28245	15.251	28.47769	80.27716
110.5	44717.	28733	15.514	28.47691	80.27226
111.0	45248.	29226	15.781	28.47610	80.26730
111.5	45784.	29725	16.050	28.47529	80.26229
112.0	46324.	30229	16.322	28.47447	80.25722
112.5	46867.	30739	16.598	28.47364	80.25210
113.0	47416.	31255	16.876	28.47281	80.24692
INBOARD ENGINE CUTOFF SIGNAL					
113.490	47946.	31756	17.147	28.47199	80.24189
113.5	47968.	31777	17.158	28.47196	80.24168
BEGIN INBOARD ENGINE THRUST DECAY					
113.680	48168.	31966	17.260	28.47165	80.23978
114.0	48524.	32303	17.442	28.47110	80.23639
114.5	49082.	32834	17.729	28.47024	80.23106
115.0	49642.	33368	18.017	28.46937	80.22570
115.5	50203.	33905	18.307	28.46849	80.22031
END INBOARD ENGINE THRUST DECAY					
115.540	50248.	33948	18.330	28.46842	80.21987
116.0	50766.	34445	18.599	28.46761	80.21488
116.5	51330.	34989	18.892	28.46672	80.20942
117.0	51896.	35535	19.188	28.46583	80.20393
117.5	52463.	36086	19.485	28.46494	80.19840
118.0	53032.	36639	19.783	28.46403	80.19285
118.5	53602.	37196	20.084	28.46312	80.18726
119.0	54174.	37755	20.386	28.46221	80.18164
119.5	54748.	38318	20.690	28.46129	80.17599
120.0	55323.	38884	20.996	28.46036	80.17030
120.5	55899.	39454	21.303	28.45942	80.16458
121.0	56477.	40027	21.613	28.45848	80.15883
BEGIN OUTBOARD ENGINE THRUST DECAY					
121.100	56593.	40142	21.675	28.45830	80.15767
OUTBOARD ENGINE CUTOFF SIGNAL					
121.120	56616.	40165	21.687	28.45826	80.15744
MAXIMUM EARTH-FIXED VELOCITY					
121.500	57056.	40603	21.924	28.45754	80.15305

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
122.0	57634.	41179	22.235	28.45660	80.14726
122.5	58210.	41756	22.546	28.45565	80.14147
123.0	58784.	42333	22.858	28.45470	80.13568
END ØUTBØARD ENGINE THRUST DECAY					
123.350	59185.	42737	23.076	28.45404	80.13162
123.5	59356.	42909	23.169	28.45376	80.12989
124.0	59925.	43486	23.480	28.45282	80.12410
124.5	60492.	44062	23.792	28.45187	80.11831
125.0	61060.	44640	24.104	28.45092	80.11251
RETRO ROCKET IGNITION					
125.460	61578.	45172	24.391	28.45005	80.10718
125.5	61624.	45217	24.415	28.44998	80.10672
126.0	62184.	45793	24.726	28.44903	80.10093
126.5	62740.	46369	25.037	28.44807	80.09516
127.0	63292.	46943	25.347	28.44713	80.08939
127.5	63842.	47517	25.657	28.44619	80.08364
RETRO ROCKET BURNOUT					
127.600	63952.	47631	25.719	28.44600	80.08249
128.0	64391.	48088	25.965	28.44525	80.07790
128.5	64936.	48661	26.275	28.44430	80.07215
129.0	65478.	49234	26.584	28.44335	80.06640
129.5	66019.	49806	26.893	28.44240	80.06066
130.0	66557.	50379	27.202	28.44145	80.05491
130.5	67094.	50949	27.511	28.44051	80.04919
131.0	67628.	51521	27.819	28.43956	80.04345
131.5	68160.	52093	28.128	28.43861	80.03772
132.0	68689.	52664	28.436	28.43767	80.03198
132.5	69216.	53236	28.745	28.43672	80.02624
133.0	69741.	53807	29.054	28.43577	80.02051
133.5	70263.	54379	29.362	28.43482	80.01478
134.0	70783.	54950	29.671	28.43388	80.00904
134.5	71300.	55521	29.979	28.43293	80.00331
135.0	71816.	56092	30.287	28.43198	79.99759
135.5	72329.	56662	30.595	28.43103	79.99186
136.0	72839.	57233	30.903	28.43008	79.98614
136.5	73348.	57804	31.211	28.42913	79.98041
137.0	73854.	58374	31.519	28.42818	79.97469

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
137.5	74358.	58944	31.827	28.42723	79.96897
138.0	74859.	59515	32.135	28.42628	79.96325
138.5	75358.	60085	32.443	28.42532	79.95753
139.0	75855.	60655	32.751	28.42438	79.95181
139.5	76350.	61224	33.059	28.42342	79.94610
140.0	76842.	61794	33.366	28.42247	79.94038
140.5	77332.	62364	33.674	28.42152	79.93467
141.0	77820.	62933	33.981	28.42057	79.92896
141.5	78305.	63503	34.289	28.41961	79.92324
142.0	78788.	64072	34.596	28.41866	79.91753
142.5	79269.	64641	34.903	28.41771	79.91183
143.0	79748.	65210	35.211	28.41676	79.90612
143.5	80224.	65779	35.518	28.41581	79.90042
144.0	80698.	66348	35.825	28.41486	79.89471
144.5	81170.	66916	36.132	28.41390	79.88901
145.0	81639.	67485	36.439	28.41295	79.88331
145.5	82106.	68053	36.746	28.41199	79.87761
146.0	82571.	68622	37.053	28.41104	79.87191
146.5	83033.	69190	37.360	28.41008	79.86621
147.0	83494.	69758	37.666	28.40913	79.86051
147.5	83951.	70326	37.973	28.40817	79.85482
148.0	84407.	70894	38.280	28.40722	79.84912
148.5	84860.	71462	38.586	28.40626	79.84343
149.0	85311.	72030	38.893	28.40530	79.83774
149.5	85760.	72598	39.200	28.40435	79.83205
150.0	86206.	73165	39.506	28.40339	79.82636
150.5	86650.	73733	39.812	28.40243	79.82067
151.0	87092.	74300	40.119	28.40147	79.81498
151.5	87531.	74867	40.425	28.40052	79.80929
152.0	87968.	75434	40.731	28.39956	79.80361
152.5	88403.	76001	41.037	28.39860	79.79793
153.0	88836.	76568	41.344	28.39764	79.79224
153.5	89266.	77135	41.650	28.39668	79.78656
154.0	89694.	77702	41.956	28.39572	79.78088
154.5	90120.	78268	42.262	28.39476	79.77520
155.0	90543.	78835	42.567	28.39380	79.76952
155.5	90964.	79401	42.873	28.39284	79.76385
156.0	91383.	79968	43.179	28.39188	79.75817
156.5	91799.	80534	43.485	28.39092	79.75250
157.0	92214.	81100	43.790	28.38995	79.74682

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TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LØNGITUDE DEG
157.5	92625.	81666	44.096	28.38899	79.74115
158.0	93035.	82232	44.402	28.38803	79.73548
158.5	93442.	82798	44.707	28.38707	79.72981
159.0	93848.	83363	45.013	28.38610	79.72414
159.5	94250.	83929	45.318	28.38514	79.71847
160.0	94651.	84495	45.623	28.38418	79.71281
160.5	95049.	85060	45.929	28.38322	79.70714
161.0	95445.	85625	46.234	28.38225	79.70148
161.5	95838.	86191	46.539	28.38129	79.69581
162.0	96230.	86756	46.844	28.38032	79.69015
162.5	96619.	87321	47.149	28.37936	79.68449
163.0	97005.	87886	47.455	28.37839	79.67883
163.5	97390.	88451	47.760	28.37743	79.67317
164.0	97772.	89016	48.065	28.37646	79.66751
164.5	98152.	89580	48.369	28.37550	79.66185
165.0	98530.	90145	48.674	28.37453	79.65620
165.5	98905.	90709	48.979	28.37356	79.65054
166.0	99278.	91274	49.284	28.37260	79.64489
166.5	99648.	91838	49.589	28.37163	79.63924
167.0	100017.	92403	49.893	28.37066	79.63359
167.5	100383.	92967	50.198	28.36969	79.62794
168.0	100747.	93531	50.503	28.36873	79.62229
168.5	101108.	94095	50.807	28.36776	79.61664
169.0	101468.	94659	51.112	28.36679	79.61099
169.5	101825.	95223	51.416	28.36582	79.60534
170.0	102180.	95786	51.721	28.36485	79.59970
170.5	102532.	96350	52.025	28.36388	79.59405
171.0	102882.	96914	52.329	28.36291	79.58841
171.5	103230.	97477	52.633	28.36194	79.58276
172.0	103576.	98041	52.938	28.36097	79.57712
172.5	103919.	98604	53.242	28.36000	79.57148
173.0	104260.	99167	53.546	28.35903	79.56584
173.5	104599.	99730	53.850	28.35806	79.56020
174.0	104935.	100293	54.154	28.35709	79.55456
174.5	105269.	100856	54.458	28.35611	79.54893
175.0	105601.	101419	54.762	28.35514	79.54329
175.5	105931.	101982	55.066	28.35417	79.53766
176.0	106258.	102545	55.370	28.35320	79.53202
176.5	106583.	103108	55.674	28.35222	79.52639
177.0	106906.	103670	55.977	28.35125	79.52076

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TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
177.5	107226.	104233	56.281	28.35028	79.51512
178.0	107545.	104795	56.585	28.34930	79.50949
178.5	107860.	105358	56.889	28.34833	79.50386
179.0	108174.	105920	57.192	28.34735	79.49824
179.5	108485.	106482	57.496	28.34638	79.49261
180.0	108795.	107045	57.799	28.34540	79.48698
180.5	109101.	107607	58.103	28.34443	79.48135
181.0	109406.	108169	58.406	28.34345	79.47573
181.5	109708.	108731	58.710	28.34247	79.47010
182.0	110008.	109293	59.013	28.34150	79.46448
182.5	110306.	109854	59.317	28.34052	79.45886
183.0	110601.	110416	59.620	28.33954	79.45324
183.5	110894.	110978	59.923	28.33857	79.44761
184.0	111185.	111540	60.227	28.33759	79.44199
184.5	111474.	112101	60.530	28.33661	79.43637
185.0	111760.	112663	60.833	28.33563	79.43076
185.5	112044.	113224	61.136	28.33465	79.42514
186.0	112326.	113785	61.439	28.33367	79.41952
186.5	112605.	114347	61.742	28.33269	79.41390
187.0	112882.	114908	62.045	28.33171	79.40829
187.5	113157.	115469	62.348	28.33073	79.40267
188.0	113430.	116030	62.651	28.32975	79.39706
188.5	113700.	116591	62.954	28.32877	79.39145
189.0	113968.	117152.	63.257	28.32779	79.38584
189.5	114234.	117713	63.560	28.32681	79.38022
190.0	114498.	118274	63.863	28.32583	79.37461
190.5	114759.	118835	64.166	28.32485	79.36900
191.0	115018.	119395	64.468	28.32386	79.36339
191.5	115274.	119956	64.771	28.32288	79.35779
192.0	115529.	120517	65.074	28.32190	79.35218
192.5	115781.	121077	65.377	28.32091	79.34657
193.0	116031.	121638	65.679	28.31993	79.34096
193.5	116278.	122198	65.982	28.31895	79.33536
194.0	116524.	122758	66.284	28.31796	79.32975
194.5	116767.	123319	66.587	28.31698	79.32415
195.0	117007.	123879	66.889	28.31599	79.31855
195.5	117246.	124439	67.192	28.31501	79.31294
196.0	117482.	124999	67.494	28.31402	79.30734
196.5	117716.	125559	67.797	28.31304	79.30174
197.0	117948.	126119	68.099	28.31205	79.29614

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TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
197.5	118177.	126680	68.401	28.31106	79.29054
198.0	118404.	127239	68.704	28.31008	79.28494
198.5	118629.	127799	69.006	28.30909	79.27934
199.0	118852.	128359	69.308	28.30810	79.27375
199.5	119072.	128919	69.611	28.30711	79.26815
200.0	119290.	129479	69.913	28.30613	79.26255
200.5	119506.	130038	70.215	28.30514	79.25696
201.0	119719.	130598	70.517	28.30415	79.25136
201.5	119931.	131157	70.819	28.30316	79.24577
202.0	120139.	131717	71.121	28.30217	79.24017
202.5	120346.	132276	71.424	28.30118	79.23458
203.0	120551.	132836	71.726	28.30019	79.22899
203.5	120753.	133395	72.028	28.29920	79.22339
204.0	120953.	133954	72.330	28.29821	79.21780
204.5	121150.	134514	72.632	28.29721	79.21221
205.0	121345.	135073	72.934	28.29622	79.20662
205.5	121539.	135632	73.235	28.29523	79.20103
206.0	121729.	136191	73.537	28.29424	79.19544
206.5	121918.	136750	73.839	28.29325	79.18985
207.0	122104.	137309	74.141	28.29225	79.18427
207.5	122288.	137868	74.443	28.29126	79.17868
208.0	122470.	138427	74.745	28.29026	79.17309
208.5	122649.	138986	75.047	28.28927	79.16751
209.0	122826.	139545	75.348	28.28828	79.16192
209.5	123001.	140104	75.650	28.28728	79.15634
210.0	123174.	140663	75.952	28.28629	79.15075
210.5	123344.	141222	76.254	28.28529	79.14517
211.0	123512.	141780	76.555	28.28429	79.13959
211.5	123678.	142339	76.857	28.28330	79.13400
212.0	123842.	142898	77.159	28.28230	79.12842
212.5	124003.	143456	77.460	28.28131	79.12284
213.0	124162.	144015	77.762	28.28031	79.11726
213.5	124318.	144573	78.063	28.27931	79.11168
214.0	124473.	145132	78.365	28.27831	79.10610
214.5	124625.	145690	78.666	28.27731	79.10052
215.0	124775.	146249	78.968	28.27631	79.09494
215.5	124923.	146807	79.270	28.27532	79.08936
216.0	125068.	147365	79.571	28.27432	79.08378
216.5	125211.	147924	79.872	28.27332	79.07820
217.0	125352.	148482	80.174	28.27232	79.07262

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
217.5	125490.	149040	80.475	28.27132	79.06705
218.0	125627.	149599	80.777	28.27032	79.06147
218.5	125761.	150157	81.078	28.26931	79.05590
219.0	125893.	150715	81.380	28.26831	79.05032
219.5	126022.	151273	81.681	28.26731	79.04475
220.0	126149.	151831	81.982	28.26631	79.03917
220.5	126274.	152389	82.284	28.26531	79.03360
221.0	126397.	152947	82.585	28.26430	79.02802
221.5	126517.	153505	82.886	28.26330	79.02245
222.0	126635.	154063	83.188	28.26230	79.01688
222.5	126751.	154621	83.489	28.26129	79.01131
223.0	126865.	155179	83.790	28.26029	79.00573
223.5	126976.	155737	84.091	28.25928	79.00016
224.0	127085.	156295	84.393	28.25828	78.99459
224.5	127192.	156853	84.694	28.25727	78.98902
225.0	127297.	157411	84.995	28.25627	78.98345
225.5	127399.	157968	85.296	28.25526	78.97788
226.0	127499.	158526	85.597	28.25425	78.97231
226.5	127597.	159084	85.898	28.25325	78.96674
227.0	127692.	159642	86.200	28.25224	78.96117
227.5	127786.	160199	86.501	28.25123	78.95560
228.0	127877.	160757	86.802	28.25022	78.95004
228.5	127965.	161315	87.103	28.24921	78.94447
229.0	128052.	161872	87.404	28.24821	78.93890
229.5	128136.	162430	87.705	28.24720	78.93333
230.0	128218.	162988	88.006	28.24619	78.92777
230.5	128297.	163545	88.307	28.24518	78.92220
231.0	128375.	164103	88.608	28.24417	78.91664
231.5	128450.	164660	88.910	28.24316	78.91107
232.0	128523.	165218	89.210	28.24215	78.90550
232.5	128593.	165775	89.512	28.24113	78.89994
233.0	128661.	166333	89.813	28.24012	78.89437
233.5	128727.	166890	90.114	28.23911	78.88881
234.0	128791.	167448	90.415	28.23810	78.88325
234.5	128853.	168005	90.716	28.23708	78.87768
235.0	128912.	168563	91.017	28.23607	78.87212
235.5	128969.	169120	91.318	28.23506	78.86656
236.0	129024.	169678	91.619	28.23404	78.86099
236.5	129076.	170235	91.920	28.23303	78.85543
237.0	129126.	170792	92.221	28.23201	78.84987

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
237.5	129174.	171350	92.522	28.23100	78.84430
238.0	129220.	171907	92.822	28.22998	78.83874
238.5	129263.	172465	93.123	28.22897	78.83318
239.0	129304.	173022	93.424	28.22795	78.82762
239.5	129343.	173579	93.725	28.22693	78.82206
240.0	129379.	174137	94.026	28.22592	78.81650
240.5	129414.	174694	94.327	28.22490	78.81094
241.0	129446.	175251	94.628	28.22388	78.80538
241.5	129476.	175809	94.929	28.22286	78.79982
242.0	129503.	176366	95.230	28.22184	78.79426
242.5	129528.	176923	95.531	28.22082	78.78870
243.0	129551.	177480	95.832	28.21980	78.78314
243.5	129572.	178038	96.133	28.21878	78.77758
244.0	129591.	178595	96.434	28.21776	78.77202
244.5	129606.	179152	96.734	28.21674	78.76646
245.0	129621.	179710	97.035	28.21572	78.76090
245.5	129632.	180267	97.336	28.21470	78.75534
246.0	129641.	180824	97.637	28.21368	78.74978
246.5	129649.	181381	97.938	28.21266	78.74422
247.0	129654.	181939	98.239	28.21163	78.73867
247.5	129656.	182496	98.540	28.21061	78.73311
APEX					
247.799	129657.	182830	98.720	28.21000	78.72977
248.0	129656.	183053	98.841	28.20959	78.72755
248.5	129654.	183610	99.142	28.20856	78.72199
249.0	129650.	184168	99.443	28.20754	78.71643
249.5	129644.	184725	99.743	28.20651	78.71088
250.0	129635.	185282	100.044	28.20549	78.70532
250.5	129624.	185839	100.345	28.20446	78.69976
251.0	129611.	186397	100.646	28.20344	78.69420
251.5	129595.	186954	100.947	28.20241	78.68865
252.0	129577.	187511	101.248	28.20139	78.68309
252.5	129557.	188069	101.549	28.20036	78.67753
253.0	129535.	188626	101.850	28.19933	78.67198
253.5	129510.	189183	102.151	28.19830	78.66642
254.0	129484.	189741	102.452	28.19727	78.66086
254.5	129454.	190298	102.753	28.19625	78.65531
255.0	129423.	190855	103.054	28.19522	78.64975
255.5	129389.	191412	103.354	28.19419	78.64419

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
256.0	129353.	191970	103.655	28.19316	78.63864
256.5	129315.	192527	103.956	28.19213	78.63308
257.0	129275.	193085	104.257	28.19110	78.62753
257.5	129232.	193642	104.558	28.19007	78.62197
258.0	129187.	194199	104.859	28.18903	78.61641
258.5	129140.	194757	105.160	28.18800	78.61086
259.0	129090.	195314	105.461	28.18697	78.60530
259.5	129038.	195871	105.762	28.18594	78.59975
260.0	128984.	196429	106.063	28.18490	78.59419
260.5	128928.	196986	106.364	28.18387	78.58863
261.0	128869.	197544	106.665	28.18284	78.58308
261.5	128809.	198101	106.966	28.18180	78.57752
262.0	128745.	198659	107.267	28.18077	78.57197
262.5	128680.	199216	107.568	28.17973	78.56641
263.0	128612.	199774	107.869	28.17870	78.56085
263.5	128543.	200331	108.170	28.17766	78.55530
264.0	128470.	200889	108.471	28.17662	78.54974
264.5	128396.	201446	108.772	28.17559	78.54419
265.0	128319.	202004	109.073	28.17455	78.53863
265.5	128240.	202561	109.374	28.17351	78.53307
266.0	128159.	203119	109.675	28.17247	78.52752
266.5	128075.	203677	109.977	28.17143	78.52196
267.0	127990.	204234	110.278	28.17040	78.51640
267.5	127901.	204792	110.579	28.16936	78.51085
268.0	127811.	205350	110.880	28.16832	78.50529
268.5	127719.	205907	111.181	28.16727	78.49974
269.0	127624.	206465	111.482	28.16623	78.49418
269.5	127527.	207023	111.783	28.16519	78.48862
270.0	127427.	207581	112.085	28.16415	78.48307
270.5	127325.	208138	112.386	28.16311	78.47751
271.0	127222.	208696	112.687	28.16207	78.47195
271.5	127115.	209254	112.988	28.16102	78.46640
272.0	127007.	209812	113.289	28.15998	78.46084
272.5	126896.	210370	113.591	28.15894	78.45528
273.0	126783.	210928	113.892	28.15789	78.44973
273.5	126668.	211486	114.193	28.15685	78.44417
274.0	126550.	212044	114.494	28.15580	78.43861
274.5	126431.	212602	114.796	28.15476	78.43305
275.0	126309.	213160	115.097	28.15371	78.42749
275.5	126184.	213718	115.398	28.15267	78.42194

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
276.0	126058.	214276	115.700	28.15162	78.41638
276.5	125929.	214834	116.001	28.15057	78.41082
277.0	125798.	215392	116.302	28.14952	78.40526
277.5	125664.	215950	116.604	28.14848	78.39970
278.0	125529.	216509	116.905	28.14743	78.39415
278.5	125391.	217067	117.207	28.14638	78.38859
279.0	125250.	217625	117.508	28.14533	78.38303
279.5	125108.	218183	117.810	28.14428	78.37747
280.0	124963.	218742	118.111	28.14323	78.37191
280.5	124816.	219300	118.413	28.14218	78.36635
281.0	124667.	219858	118.714	28.14113	78.36079
281.5	124515.	220417	119.016	28.14007	78.35523
282.0	124362.	220975	119.317	28.13902	78.34967
282.5	124205.	221534	119.619	28.13797	78.34411
283.0	124047.	222093	119.920	28.13692	78.33855
283.5	123887.	222651	120.222	28.13586	78.33299
284.0	123724.	223210	120.524	28.13481	78.32743
284.5	123558.	223769	120.825	28.13375	78.32186
285.0	123391.	224327	121.127	28.13270	78.31630
285.5	123221.	224886	121.429	28.13165	78.31074
286.0	123049.	225445	121.730	28.13059	78.30518
286.5	122875.	226003	122.032	28.12953	78.29962
287.0	122699.	226562	122.334	28.12848	78.29406
287.5	122520.	227121	122.636	28.12742	78.28849
288.0	122339.	227680	122.937	28.12636	78.28293
288.5	122155.	228239	123.239	28.12530	78.27737
289.0	121970.	228798	123.541	28.12424	78.27180
289.5	121782.	229357	123.843	28.12319	78.26624
290.0	121592.	229917	124.145	28.12213	78.26067
290.5	121399.	230476	124.447	28.12107	78.25511
291.0	121205.	231035	124.749	28.12001	78.24954
291.5	121008.	231594	125.051	28.11895	78.24398
292.0	120809.	232154	125.353	28.11788	78.23841
292.5	120607.	232713	125.655	28.11682	78.23285
293.0	120403.	233272	125.957	28.11576	78.22728
293.5	120197.	233832	126.259	28.11470	78.22171
294.0	119989.	234391	126.561	28.11363	78.21615
294.5	119778.	234951	126.863	28.11257	78.21058
295.0	119565.	235510	127.165	28.11151	78.20501
295.5	119350.	236070	127.468	28.11044	78.19945

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
296.0	119133.	236630	127.770	28.10938	78.19388
296.5	118913.	237189	128.072	28.10831	78.18831
297.0	118691.	237749	128.374	28.10725	78.18274
297.5	118467.	238309	128.677	28.10618	78.17717
298.0	118241.	238869	128.979	28.10511	78.17160
298.5	118012.	239429	129.281	28.10405	78.16603
299.0	117781.	239989	129.584	28.10298	78.16046
299.5	117548.	240549	129.886	28.10191	78.15489
300.0	117312.	241109	130.189	28.10084	78.14932
300.5	117074.	241669	130.491	28.09977	78.14375
301.0	116834.	242230	130.794	28.09870	78.13817
301.5	116592.	242790	131.096	28.09763	78.13260
302.0	116347.	243350	131.399	28.09656	78.12703
302.5	116100.	243911	131.701	28.09549	78.12146
303.0	115851.	244471	132.004	28.09442	78.11588
303.5	115599.	245032	132.307	28.09335	78.11031
304.0	115345.	245592	132.609	28.09227	78.10473
304.5	115089.	246153	132.912	28.09120	78.09916
305.0	114831.	246714	133.215	28.09013	78.09358
305.5	114570.	247274	133.517	28.08905	78.08801
306.0	114307.	247835	133.820	28.08798	78.08243
306.5	114042.	248396	134.123	28.08690	78.07685
307.0	113775.	248957	134.426	28.08583	78.07127
307.5	113505.	249518	134.729	28.08475	78.06570
308.0	113233.	250079	135.032	28.08368	78.06012
308.5	112959.	250640	135.335	28.08260	78.05454
309.0	112682.	251202	135.638	28.08152	78.04896
309.5	112404.	251763	135.941	28.08044	78.04338
310.0	112122.	252324	136.244	28.07936	78.03780
310.5	111839.	252885	136.547	28.07829	78.03222
311.0	111553.	253447	136.850	28.07721	78.02664
311.5	111265.	254008	137.154	28.07613	78.02106
312.0	110975.	254570	137.457	28.07505	78.01547
312.5	110683.	255132	137.760	28.07396	78.00989
313.0	110388.	255693	138.063	28.07288	78.00431
313.5	110091.	256255	138.367	28.07180	77.99872
314.0	109792.	256817	138.670	28.07072	77.99314
314.5	109490.	257379	138.974	28.06964	77.98755
315.0	109186.	257941	139.277	28.06855	77.98197
315.5	108880.	258503	139.581	28.06747	77.97638

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
316.0	108571.	259066	139.884	28.06639	77.97080
316.5	108261.	259628	140.188	28.06530	77.96521
317.0	107948.	260190	140.491	28.06422	77.95962
317.5	107633.	260752	140.795	28.06313	77.95403
318.0	107315.	261315	141.099	28.06204	77.94844
318.5	106995.	261877	141.402	28.06096	77.94285
319.0	106673.	262440	141.706	28.05987	77.93726
319.5	106349.	263003	142.010	28.05878	77.93167
320.0	106022.	263565	142.314	28.05769	77.92608
320.5	105693.	264128	142.618	28.05660	77.92049
321.0	105362.	264691	142.922	28.05551	77.91489
321.5	105028.	265254	143.226	28.05442	77.90930
322.0	104692.	265817	143.530	28.05333	77.90371
322.5	104354.	266380	143.834	28.05224	77.89811
323.0	104014.	266944	144.138	28.05115	77.89252
323.5	103671.	267507	144.442	28.05006	77.88692
324.0	103326.	268070	144.746	28.04897	77.88132
324.5	102979.	268634	145.051	28.04787	77.87573
325.0	102629.	269197	145.355	28.04678	77.87013
325.5	102278.	269761	145.659	28.04569	77.86453
326.0	101924.	270325	145.964	28.04459	77.85893
326.5	101567.	270889	146.268	28.04350	77.85333
327.0	101209.	271453	146.573	28.04240	77.84773
327.5	100848.	272017	146.877	28.04130	77.84213
328.0	100484.	272581	147.182	28.04021	77.83653
328.5	100119.	273145	147.486	28.03911	77.83092
329.0	99751.	273709	147.791	28.03801	77.82532
329.5	99381.	274273	148.096	28.03691	77.81972
330.0	99009.	274838	148.400	28.03582	77.81411
330.5	98634.	275402	148.705	28.03472	77.80850
331.0	98257.	275967	149.010	28.03362	77.80290
331.5	97878.	276531	149.315	28.03252	77.79729
332.0	97496.	277096	149.620	28.03141	77.79168
332.5	97113.	277661	149.925	28.03031	77.78607
333.0	96726.	278226	150.230	28.02921	77.78046
333.5	96338.	278791	150.535	28.02811	77.77485
334.0	95947.	279356	150.840	28.02700	77.76924
334.5	95554.	279921	151.146	28.02590	77.76363
335.0	95159.	280487	151.451	28.02480	77.75802
335.5	94762.	281052	151.756	28.02369	77.75240

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
336.0	94362.	281618	152.061	28.02259	77.74679
336.5	93960.	282183	152.367	28.02148	77.74118
337.0	93555.	282749	152.672	28.02038	77.73556
337.5	93149.	283315	152.978	28.01927	77.72994
338.0	92740.	283881	153.283	28.01816	77.72432
338.5	92328.	284447	153.589	28.01705	77.71871
339.0	91915.	285013	153.895	28.01595	77.71309
339.5	91499.	285579	154.200	28.01484	77.70747
340.0	91081.	286145	154.506	28.01373	77.70185
340.5	90660.	286712	154.812	28.01262	77.69623
341.0	90238.	287278	155.118	28.01151	77.69060
341.5	89813.	287845	155.424	28.01039	77.68498
342.0	89385.	288411	155.730	28.00928	77.67936
342.5	88956.	288978	156.036	28.00817	77.67373
343.0	88524.	289545	156.342	28.00706	77.66811
343.5	88090.	290112	156.648	28.00595	77.66248
344.0	87653.	290679	156.954	28.00483	77.65685
344.5	87214.	291246	157.261	28.00372	77.65122
345.0	86773.	291814	157.567	28.00260	77.64559
345.5	86330.	292381	157.873	28.00149	77.63996
346.0	85884.	292949	158.180	28.00037	77.63433
346.5	85436.	293516	158.486	27.99925	77.62870
347.0	84986.	294084	158.793	27.99814	77.62307
347.5	84533.	294652	159.099	27.99702	77.61743
348.0	84079.	295220	159.406	27.99590	77.61180
348.5	83621.	295788	159.713	27.99478	77.60616
349.0	83162.	296356	160.019	27.99366	77.60052
349.5	82700.	296924	160.326	27.99254	77.59489
350.0	82236.	297493	160.633	27.99142	77.58925
350.5	81770.	298061	160.940	27.99030	77.58361
351.0	81301.	298630	161.247	27.98918	77.57797
351.5	80830.	299198	161.554	27.98806	77.57233
352.0	80357.	299767	161.861	27.98693	77.56669
352.5	79881.	300336	162.169	27.98581	77.56104
353.0	79404.	300905	162.476	27.98469	77.55540
353.5	78923.	301474	162.783	27.98356	77.54975
354.0	78441.	302044	163.091	27.98243	77.54411
354.5	77956.	302613	163.398	27.98131	77.53846
355.0	77469.	303183	163.706	27.98018	77.53281
355.5	76980.	303752	164.013	27.97906	77.52716

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TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
356.0	76488.	304322	164.321	27.97793	77.52151
356.5	75994.	304892	164.628	27.97680	77.51586
357.0	75498.	305462	164.936	27.97567	77.51021
357.5	74999.	306032	165.244	27.97454	77.50455
358.0	74499.	306602	165.552	27.97341	77.49890
358.5	73996.	307173	165.860	27.97228	77.49324
359.0	73490.	307743	166.168	27.97115	77.48759
359.5	72982.	308314	166.476	27.97002	77.48193
360.0	72472.	308884	166.784	27.96889	77.47627
360.5	71960.	309455	167.092	27.96775	77.47061
361.0	71445.	310026	167.401	27.96662	77.46495
361.5	70928.	310597	167.709	27.96549	77.45929
362.0	70409.	311168	168.017	27.96435	77.45363
362.5	69887.	311740	168.326	27.96322	77.44796
363.0	69363.	312311	168.634	27.96208	77.44230
363.5	68837.	312883	168.943	27.96095	77.43663
364.0	68309.	313454	169.252	27.95981	77.43096
364.5	67778.	314026	169.560	27.95867	77.42530
365.0	67245.	314598	169.869	27.95753	77.41963
365.5	66709.	315170	170.178	27.95640	77.41396
366.0	66172.	315742	170.487	27.95526	77.40829
366.5	65632.	316314	170.796	27.95412	77.40261
367.0	65089.	316887	171.105	27.95298	77.39694
367.5	64545.	317459	171.414	27.95184	77.39126
368.0	63998.	318032	171.724	27.95069	77.38559
368.5	63449.	318605	172.033	27.94955	77.37991
369.0	62897.	319178	172.342	27.94841	77.37423
369.5	62343.	319751	172.652	27.94727	77.36855
370.0	61787.	320324	172.961	27.94612	77.36287
370.5	61228.	320897	173.271	27.94498	77.35719
371.0	60668.	321471	173.580	27.94383	77.35151
371.5	60105.	322044	173.890	27.94269	77.34583
372.0	59539.	322618	174.200	27.94154	77.34014
372.5	58971.	323192	174.510	27.94039	77.33446
373.0	58401.	323766	174.820	27.93925	77.32877
373.5	57829.	324340	175.130	27.93810	77.32308
374.0	57255.	324914	175.440	27.93695	77.31739
374.5	56678.	325489	175.750	27.93580	77.31170
375.0	56098.	326063	176.060	27.93465	77.30601
375.5	55517.	326638	176.370	27.93350	77.30032

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
376.0	54933.	327213	176.681	27.93235	77.29462
376.5	54347.	327787	176.991	27.93120	77.28893
377.0	53758.	328362	177.301	27.93004	77.28323
377.5	53168.	328937	177.612	27.92889	77.27753
378.0	52574.	329513	177.923	27.92774	77.27184
378.5	51979.	330088	178.233	27.92658	77.26614
379.0	51381.	330664	178.544	27.92543	77.26044
379.5	50781.	331239	178.855	27.92427	77.25473
380.0	50179.	331815	179.166	27.92312	77.24903
380.5	49575.	332391	179.477	27.92196	77.24333
381.0	48968.	332967	179.788	27.92080	77.23762
381.5	48359.	333543	180.099	27.91965	77.23192
382.0	47747.	334119	180.410	27.91849	77.22621
382.5	47133.	334696	180.721	27.91733	77.22050
383.0	46518.	335272	181.032	27.91617	77.21479
383.5	45899.	335849	181.344	27.91501	77.20908
384.0	45279.	336425	181.655	27.91385	77.20337
384.5	44656.	337002	181.966	27.91269	77.19766
385.0	44031.	337579	182.278	27.91153	77.19195
385.5	43403.	338156	182.590	27.91037	77.18624
386.0	42774.	338733	182.901	27.90920	77.18052
386.5	42142.	339310	183.213	27.90804	77.17481
387.0	41508.	339887	183.524	27.90688	77.16909
387.5	40871.	340465	183.836	27.90571	77.16338
388.0	40232.	341042	184.148	27.90455	77.15766
388.5	39592.	341620	184.460	27.90339	77.15194
389.0	38949.	342197	184.772	27.90222	77.14622
389.5	38303.	342775	185.084	27.90105	77.14051
390.0	37656.	343352	185.395	27.89989	77.13479
390.5	37006.	343930	185.707	27.89872	77.12907
391.0	36354.	344508	186.019	27.89755	77.12335
391.5	35700.	345085	186.331	27.89639	77.11763
392.0	35044.	345663	186.643	27.89522	77.11192
392.5	34386.	346240	186.955	27.89405	77.10620
393.0	33726.	346818	187.267	27.89288	77.10048
393.5	33063.	347395	187.578	27.89172	77.09477
394.0	32399.	347973	187.890	27.89055	77.08905
394.5	31733.	348550	188.202	27.88938	77.08334
395.0	31064.	349127	188.514	27.88821	77.07763
395.5	30394.	349704	188.825	27.88704	77.07192

TABLE VII

TIME SEC	ALTITUDE M	RANGE M	RANGE NM	LATITUDE DEG	LONGITUDE DEG
396.0	29722.	350281	189.136	27.88587	77.06621
396.5	29048.	350857	189.448	27.88471	77.06051
397.0	28372.	351433	189.759	27.88354	77.05481
397.5	27695.	352008	190.069	27.88237	77.04911
LOSS OF TELEMETRY					
397.796	27288.	352354	190.256	27.88167	77.04570

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
FIRST MOTION						
0.400	0.0	0.012	0.0001	90.000	270.000	409.0
0.5	0.4	0.012	0.0001	88.742	270.003	409.0
LIFT OFF SIGNAL						
0.580	0.6	0.012	0.0001	89.105	270.010	409.0
1.0	2.1	0.013	0.0001	89.009	270.031	409.0
1.5	4.0	0.017	0.0002	89.254	270.072	409.0
2.0	5.8	0.021	0.0003	89.475	270.111	409.1
2.5	7.7	0.025	0.0005	89.668	270.132	409.1
3.0	9.7	0.030	0.0007	89.811	270.120	409.1
3.5	11.6	0.036	0.0009	89.827	270.069	409.1
4.0	13.6	0.041	0.0012	89.729	269.973	409.2
4.5	15.6	0.047	0.0016	89.613	269.831	409.2
5.0	17.7	0.052	0.0020	89.505	269.642	409.2
5.5	19.7	0.058	0.0024	89.410	269.407	409.3
6.0	21.8	0.064	0.0030	89.330	269.125	409.3
6.5	24.0	0.070	0.0035	89.266	268.794	409.4
7.0	26.1	0.076	0.0042	89.216	268.410	409.5
7.5	28.3	0.083	0.0049	89.182	267.966	409.6
8.0	30.5	0.089	0.0057	89.162	267.454	409.7
8.5	32.8	0.096	0.0065	89.157	266.862	409.8
9.0	35.0	0.102	0.0074	89.165	266.172	410.0
9.5	37.3	0.109	0.0084	89.186	265.360	410.2
10.0	39.6	0.115	0.0095	89.219	264.392	410.4
10.5	42.0	0.122	0.0106	89.263	263.222	410.7
11.0	44.3	0.129	0.0118	89.316	261.779	410.9
11.5	46.7	0.136	0.0130	89.375	259.958	411.3
12.0	49.1	0.143	0.0144	89.434	257.590	411.6
12.5	51.5	0.150	0.0158	89.486	254.398	412.0
13.0	54.0	0.157	0.0173	89.518	249.891	412.4
13.5	56.5	0.164	0.0188	89.513	243.149	412.9
14.0	59.0	0.172	0.0205	89.463	232.389	413.4
14.5	61.5	0.179	0.0222	89.368	214.492	413.9
15.0	64.0	0.186	0.0240	89.236	187.562	414.5
15.5	66.6	0.194	0.0258	89.075	159.547	415.2
16.0	69.2	0.202	0.0278	88.891	140.087	415.9
16.5	71.8	0.209	0.0298	88.688	128.362	416.7
17.0	74.4	0.217	0.0319	88.467	121.095	417.5

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
17.5	77.1	0.225	0.0341	88.231	116.289	418.3
18.0	79.8	0.233	0.0364	87.980	112.917	419.3
18.5	82.5	0.241	0.0388	87.715	110.434	420.3
19.0	85.2	0.249	0.0412	87.437	108.536	421.3
19.5	88.0	0.257	0.0438	87.146	107.039	422.4
20.0	90.8	0.265	0.0464	86.842	105.829	423.6
20.5	93.6	0.274	0.0490	86.498	104.963	424.9
21.0	96.4	0.282	0.0518	86.188	104.098	426.2
21.5	99.3	0.291	0.0547	85.877	103.353	427.6
22.0	102.3	0.299	0.0577	85.560	102.693	429.0
22.5	105.3	0.308	0.0609	85.237	102.096	430.5
23.0	108.3	0.317	0.0640	84.912	101.565	432.1
23.5	111.4	0.326	0.0673	84.580	101.092	433.8
24.0	114.4	0.335	0.0707	84.243	100.688	435.5
24.5	117.5	0.345	0.0741	83.904	100.340	437.2
25.0	120.7	0.354	0.0776	83.559	100.044	439.0
25.5	123.8	0.363	0.0811	83.210	99.775	440.9
26.0	127.0	0.373	0.0847	82.853	99.544	442.9
26.5	130.2	0.382	0.0885	82.489	99.333	445.0
27.0	133.5	0.392	0.0924	82.118	99.143	447.1
27.5	136.7	0.402	0.0964	81.742	98.977	449.3
28.0	140.1	0.412	0.1004	81.361	98.821	451.6
28.5	143.4	0.422	0.1045	80.978	98.682	454.0
29.0	146.8	0.432	0.1086	80.592	98.547	456.4
29.5	150.3	0.442	0.1127	80.206	98.418	458.9
30.0	153.7	0.453	0.1170	79.820	98.292	461.5
30.5	157.2	0.463	0.1214	79.436	98.167	464.1
31.0	160.8	0.474	0.1259	79.053	98.040	466.8
31.5	164.3	0.485	0.1304	78.671	97.904	469.6
32.0	167.9	0.496	0.1352	78.290	97.763	472.4
32.5	171.5	0.507	0.1400	77.909	97.625	475.3
33.0	175.2	0.519	0.1448	77.530	97.496	478.2
33.5	178.9	0.530	0.1495	77.153	97.382	481.3
34.0	182.6	0.541	0.1543	76.780	97.298	484.3
34.5	186.4	0.553	0.1592	76.416	97.253	487.5
35.0	190.2	0.565	0.1644	76.061	97.248	490.6
35.5	194.0	0.577	0.1696	75.719	97.287	493.8
36.0	197.9	0.590	0.1751	75.391	97.360	497.0
36.5	201.8	0.603	0.1806	75.076	97.458	500.3
37.0	205.8	0.615	0.1860	74.775	97.563	503.6

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
37.5	209.8	0.627	0.1908	74.486	97.666	506.9
38.0	213.9	0.639	0.1955	74.207	97.754	510.2
38.5	218.0	0.651	0.2006	73.940	97.818	513.6
39.0	222.2	0.664	0.2057	73.679	97.863	517.1
39.5	226.3	0.677	0.2109	73.423	97.885	520.6
40.0	230.6	0.690	0.2162	73.173	97.888	524.1
40.5	234.8	0.703	0.2215	72.927	97.877	527.7
41.0	239.1	0.717	0.2270	72.687	97.863	531.3
41.5	243.5	0.731	0.2325	72.450	97.852	535.0
42.0	247.8	0.745	0.2379	72.217	97.842	538.7
42.5	252.2	0.759	0.2432	71.987	97.837	542.5
43.0	256.7	0.773	0.2488	71.761	97.829	546.3
43.5	261.1	0.788	0.2544	71.539	97.820	550.2
44.0	265.6	0.803	0.2597	71.320	97.805	554.1
44.5	270.1	0.817	0.2648	71.103	97.791	558.0
45.0	274.6	0.833	0.2704	70.889	97.777	562.0
45.5	279.2	0.849	0.2760	70.676	97.768	566.0
46.0	283.8	0.865	0.2815	70.466	97.768	570.1
46.5	288.5	0.881	0.2869	70.258	97.777	574.2
47.0	293.1	0.898	0.2926	70.054	97.798	578.4
47.5	297.8	0.914	0.2978	69.853	97.833	582.6
48.0	302.5	0.929	0.3019	69.655	97.878	586.8
48.5	307.3	0.945	0.3069	69.460	97.930	591.0
49.0	312.0	0.964	0.3131	69.266	97.986	595.3
49.5	316.7	0.980	0.3171	69.072	98.045	599.6
50.0	321.4	0.995	0.3203	68.873	98.100	603.9
MACH ONE						
50.146	322.8	1.001	0.3219	68.814	98.114	605.2
50.5	326.1	1.014	0.3257	68.670	98.145	608.3
51.0	330.8	1.030	0.3295	68.461	98.181	612.7
51.5	335.5	1.044	0.3312	68.248	98.207	617.1
52.0	340.2	1.061	0.3346	68.030	98.225	621.6
52.5	344.9	1.078	0.3382	67.807	98.238	626.1
53.0	349.6	1.094	0.3408	67.581	98.251	630.7
53.5	354.3	1.113	0.3448	67.355	98.265	635.4
54.0	359.1	1.133	0.3492	67.129	98.282	640.0
54.5	363.9	1.146	0.3488	66.905	98.305	644.7
55.0	368.8	1.162	0.3501	66.683	98.338	649.5
55.5	373.7	1.180	0.3523	66.462	98.385	654.3

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
56.0	378.7	1.199	0.3550	66.241	98.448	659.2
56.5	383.7	1.217	0.3568	66.022	98.528	664.2
57.0	388.8	1.236	0.3585	65.805	98.618	669.2
57.5	394.0	1.257	0.3610	65.588	98.714	674.3
58.0	399.2	1.274	0.3611	65.372	98.802	679.5
58.5	404.6	1.292	0.3618	65.155	98.872	684.8
59.0	410.0	1.314	0.3639	64.939	98.915	690.1
59.5	415.5	1.340	0.3681	64.722	98.928	695.6
60.0	421.0	1.361	0.3691	64.508	98.910	701.1
60.5	426.6	1.383	0.3701	64.296	98.863	706.7
61.0	432.4	1.405	0.3707	64.086	98.795	712.5
61.5	438.1	1.419	0.3673	63.879	98.716	718.3
62.0	444.0	1.446	0.3699	63.672	98.638	724.1
MAXIMUM DYNAMIC PRESSURE						
62.100	445.2	1.452	0.3705	63.630	98.624	725.3
62.5	450.0	1.470	0.3707	63.466	98.578	730.1
63.0	456.0	1.492	0.3700	63.261	98.546	736.1
63.5	462.1	1.516	0.3701	63.060	98.552	742.3
64.0	468.3	1.543	0.3713	62.864	98.596	748.4
64.5	474.6	1.562	0.3680	62.676	98.670	754.6
65.0	481.0	1.587	0.3673	62.495	98.767	760.9
65.5	487.4	1.609	0.3649	62.320	98.870	767.3
66.0	494.0	1.617	0.3562	62.151	98.968	773.7
66.5	500.6	1.622	0.3464	61.985	99.048	780.2
67.0	507.3	1.645	0.3444	61.820	99.106	786.8
67.5	514.1	1.679	0.3465	61.655	99.141	793.5
68.0	521.0	1.712	0.3473	61.487	99.159	800.3
68.5	528.0	1.730	0.3420	61.317	99.167	807.3
69.0	535.1	1.757	0.3401	61.146	99.170	814.4
69.5	542.3	1.789	0.3398	60.973	99.175	821.5
70.0	549.6	1.803	0.3324	60.799	99.189	828.8
70.5	557.0	1.827	0.3285	60.624	99.212	836.2
71.0	564.4	1.853	0.3252	60.449	99.244	843.6
71.5	572.0	1.889	0.3250	60.276	99.284	851.2
72.0	579.7	1.925	0.3245	60.104	99.324	858.9
72.5	587.4	1.962	0.3238	59.929	99.363	866.7
73.0	595.3	1.995	0.3211	59.754	99.397	874.6
73.5	603.3	2.012	0.3134	59.576	99.424	882.6
74.0	611.4	2.028	0.3051	59.395	99.445	890.8

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
74.5	619.5	2.079	0.3071	59.211	99.462	899.1
75.0	627.8	2.131	0.3089	59.025	99.475	907.5
75.5	636.2	2.150	0.3008	58.837	99.490	916.0
76.0	644.7	2.190	0.2987	58.648	99.507	924.7
76.5	653.3	2.211	0.2909	58.460	99.527	933.4
77.0	662.0	2.248	0.2876	58.272	99.551	942.3
77.5	670.8	2.273	0.2809	58.086	99.577	951.2
78.0	679.7	2.316	0.2784	57.899	99.602	960.3
78.5	688.7	2.352	0.2741	57.709	99.625	969.5
79.0	697.8	2.395	0.2708	57.517	99.646	978.8
79.5	707.0	2.419	0.2633	57.322	99.663	988.2
80.0	716.3	2.451	0.2575	57.123	99.679	997.8
80.5	725.7	2.472	0.2495	56.922	99.693	1007.5
81.0	735.2	2.498	0.2428	56.717	99.708	1017.4
81.5	744.8	2.544	0.2399	56.511	99.721	1027.3
82.0	754.6	2.571	0.2332	56.305	99.733	1037.4
82.5	764.4	2.576	0.2229	56.099	99.744	1047.6
83.0	774.4	2.621	0.2195	55.895	99.754	1057.9
83.5	784.5	2.666	0.2157	55.693	99.766	1068.3
84.0	794.6	2.650	0.2028	55.493	99.776	1078.8
84.5	804.9	2.700	0.2001	55.293	99.786	1089.5
85.0	815.3	2.747	0.1969	55.093	99.795	1100.2
85.5	825.8	2.776	0.1909	54.894	99.804	1111.0
86.0	836.4	2.780	0.1817	54.696	99.814	1122.0
86.5	847.1	2.774	0.1717	54.498	99.823	1133.1
87.0	857.9	2.851	0.1721	54.302	99.833	1144.3
87.5	868.8	2.896	0.1684	54.107	99.840	1155.5
88.0	879.9	2.926	0.1629	53.913	99.853	1167.0
88.5	891.0	2.963	0.1583	53.721	99.861	1178.5
89.0	902.3	3.010	0.1547	53.530	99.869	1190.1
89.5	913.6	3.011	0.1466	53.340	99.877	1201.9
90.0	925.1	3.038	0.1412	53.155	99.884	1213.7
90.5	936.7	3.093	0.1385	52.968	99.891	1225.7
91.0	948.4	3.142	0.1351	52.785	99.899	1237.8
91.5	960.2	3.157	0.1289	52.605	99.907	1250.0
92.0	972.1	3.211	0.1259	52.429	99.915	1262.3
92.5	984.2	3.238	0.1210	52.257	99.922	1274.6
93.0	996.3	3.257	0.1156	52.085	99.928	1287.1
93.5	1008.5	3.273	0.1103	51.916	99.934	1299.7
94.0	1020.9	3.297	0.1057	51.748	99.942	1312.4

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
94.5	1033.4	3.347	0.1027	51.583	99.951	1325.3
95.0	1046.0	3.386	0.0991	51.418	99.960	1338.2
95.5	1058.7	3.401	0.0943	51.239	99.966	1351.4
96.0	1071.7	3.480	0.0930	51.077	99.974	1364.7
96.5	1084.6	3.510	0.0891	50.913	99.983	1378.0
97.0	1097.6	3.550	0.0863	50.753	99.991	1391.3
97.5	1110.8	3.584	0.0833	50.595	100.000	1404.9
98.0	1124.1	3.618	0.0800	50.435	100.007	1418.5
98.5	1137.3	3.651	0.0766	50.285	100.015	1432.1
99.0	1150.9	3.685	0.0731	50.126	100.023	1446.0
99.5	1164.5	3.719	0.0695	49.975	100.031	1460.0
100.0	1179.9	3.759	0.0671	49.885	100.038	1475.4
100.5	1192.5	3.790	0.0644	49.671	100.046	1488.6
ENGINE NO. 5 CUTOFF SIGNAL						
100.620	1196.4	3.799	0.0636	49.631	100.049	1492.6
BEGIN ENGINE NO. 5 THRUST DECAY						
100.750	1199.4	3.807	0.0630	49.598	100.050	1495.7
101.0	1206.0	3.823	0.0617	49.514	100.054	1502.6
101.5	1217.8	3.851	0.0586	49.370	100.058	1514.7
102.0	1229.8	3.879	0.0556	49.225	100.061	1527.1
END ENGINE NO. 5 THRUST DECAY						
102.430	1240.2	3.903	0.0532	49.095	100.067	1537.8
102.5	1241.9	3.907	0.0529	49.076	100.069	1539.6
103.0	1254.0	3.936	0.0505	48.931	100.076	1552.1
103.5	1266.2	3.964	0.0480	48.784	100.083	1564.7
104.0	1278.6	3.993	0.0456	48.640	100.090	1577.5
104.5	1291.0	4.022	0.0436	48.497	100.097	1590.3
105.0	1303.5	4.051	0.0416	48.353	100.105	1603.2
105.5	1316.2	4.080	0.0396	48.220	100.111	1616.2
106.0	1328.8	4.109	0.0375	48.086	100.119	1629.2
106.5	1341.7	4.139	0.0357	47.953	100.126	1642.5
107.0	1354.5	4.168	0.0343	47.823	100.133	1655.6
107.5	1367.5	4.198	0.0327	47.699	100.140	1669.0
108.0	1380.8	4.229	0.0312	47.572	100.146	1682.6
108.5	1394.0	4.259	0.0296	47.453	100.153	1696.1
109.0	1407.3	4.289	0.0279	47.336	100.160	1709.7
109.5	1420.7	4.319	0.0264	47.224	100.166	1723.4

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
110.0	1434.3	4.350	0.0254	47.111	100.173	1737.3
110.5	1448.0	4.381	0.0245	46.999	100.180	1751.2
111.0	1461.8	4.413	0.0235	46.893	100.186	1765.3
111.5	1475.6	4.444	0.0225	46.790	100.193	1779.5
112.0	1489.6	4.475	0.0214	46.684	100.200	1793.7
112.5	1503.6	4.507	0.0203	46.584	100.206	1808.0
113.0	1517.7	4.502	0.0184	46.490	100.213	1822.3
INBOARD ENGINE CUTOFF SIGNAL						
113.490	1531.5	4.543	0.0176	46.396	100.219	1836.3
113.5	1531.9	4.545	0.0175	46.391	100.219	1836.7
BEGIN INBOARD ENGINE THRUST DECAY						
113.680	1536.9	4.559	0.0172	46.358	100.222	1841.8
114.0	1542.8	4.577	0.0166	46.295	100.226	1848.0
114.5	1549.2	4.596	0.0157	46.197	100.229	1854.7
115.0	1556.2	4.617	0.0148	46.090	100.233	1862.1
115.5	1567.7	4.651	0.0140	45.982	100.240	1873.9
END INBOARD ENGINE THRUST DECAY						
115.540	1563.6	4.639	0.0139	45.987	100.240	1869.9
116.0	1569.8	4.657	0.0131	45.893	100.246	1876.4
116.5	1576.6	4.677	0.0124	45.797	100.252	1883.5
117.0	1583.4	4.697	0.0117	45.700	100.258	1890.7
117.5	1590.1	4.717	0.0110	45.606	100.264	1897.7
118.0	1596.9	4.739	0.0104	45.512	100.265	1904.9
118.5	1603.8	4.781	0.0099	45.415	100.272	1912.1
119.0	1610.6	4.823	0.0094	45.327	100.278	1919.2
119.5	1617.5	4.867	0.0089	45.232	100.284	1926.5
120.0	1624.6	4.911	0.0085	45.142	100.291	1933.9
120.5	1631.5	4.956	0.0080	45.052	100.297	1941.1
121.0	1638.3	5.001	0.0076	44.956	100.303	1948.3
BEGIN OUTBOARD ENGINE THRUST DECAY						
121.100	1639.7	5.010	0.0075	44.934	100.304	1949.7
OUTBOARD ENGINE CUTOFF SIGNAL						
121.120	1639.7	5.011	0.0075	44.931	100.304	1949.7
MAXIMUM EARTH-FIXED VELOCITY						
121.500	1640.9	5.033	0.0071	44.829	100.309	1951.4

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
122.0	1639.3	5.053	0.0067	44.749	100.315	1950.2
122.5	1636.6	5.070	0.0062	44.637	100.321	1948.0
123.0	1633.3	5.085	0.0058	44.526	100.327	1945.3
END ØUTBOARD ENGINE THRUST DECAY						
123.350	1631.0	5.096	0.0055	44.448	100.331	1943.3
123.5	1630.0	5.100	0.0054	44.418	100.333	1942.4
124.0	1626.6	5.116	0.0050	44.306	100.339	1939.6
124.5	1623.3	5.131	0.0047	44.193	100.345	1936.8
125.0	1619.9	5.147	0.0044	44.084	100.350	1934.0
RETRO RØCKET IGNITION						
125.460	1616.9	5.162	0.0041	43.982	100.344	1931.5
125.5	1616.6	5.163	0.0041	43.970	100.344	1931.2
126.0	1611.1	5.173	0.0038	43.845	100.351	1926.3
126.5	1605.7	5.182	0.0035	43.725	100.361	1921.5
127.0	1600.4	5.192	0.0032	43.601	100.367	1916.8
127.5	1595.8	5.204	0.0030	43.480	100.387	1912.7
RETRO RØCKET BURNØUT						
127.600	1595.1	5.208	0.0030	43.457	100.388	1912.1
128.0	1592.3	5.221	0.0028	43.364	100.392	1909.8
128.5	1588.7	5.237	0.0026	43.243	100.398	1906.8
129.0	1585.3	5.254	0.0024	43.126	100.404	1903.9
129.5	1582.0	5.271	0.0022	43.009	100.409	1901.1
130.0	1578.7	5.289	0.0021	42.891	100.416	1898.4
130.5	1575.4	5.307	0.0019	42.773	100.422	1895.6
131.0	1572.2	5.325	0.0018	42.655	100.428	1892.9
131.5	1568.9	5.343	0.0016	42.536	100.434	1890.1
132.0	1565.6	5.362	0.0015	42.416	100.440	1887.4
132.5	1562.3	5.381	0.0014	42.296	100.446	1884.7
133.0	1559.1	5.400	0.0013	42.176	100.452	1882.0
133.5	1555.9	5.420	0.0012	42.053	100.460	1879.3
134.0	1552.7	5.440	0.0011	41.930	100.472	1876.7
134.5	1549.5	5.461	0.0010	41.806	100.484	1874.1
135.0	1546.3	5.481	0.0009	41.683	100.495	1871.4
135.5	1543.1	5.502	0.0009	41.559	100.501	1868.7
136.0	1540.0	5.523	0.0008	41.437	100.502	1866.1
136.5	1536.8	5.545	0.0007	41.313	100.503	1863.5
137.0	1533.6	5.567	0.0007	41.187	100.505	1860.9

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
137.5	1530.5	5.589	0.0006	41.060	100.508	1858.3
138.0	1527.3	5.611	0.0006	40.936	100.513	1855.7
138.5	1524.2	5.634	0.0005	40.811	100.518	1853.0
139.0	1521.0	5.657	0.0005	40.687	100.523	1850.4
139.5	1517.9	5.681	0.0004	40.561	100.529	1847.9
140.0	1514.8	5.705	0.0004	40.429	100.539	1845.3
140.5	1511.8	5.730	0.0004	40.294	100.547	1842.9
141.0	1508.7	5.755	0.0003	40.163	100.551	1840.3
141.5	1505.6	5.780	0.0003	40.036	100.552	1837.7
142.0	1502.5	5.806	0.0003	39.910	100.554	1835.2
142.5	1499.4	5.810	0.0003	39.783	100.556	1832.6
143.0	1496.3	5.798	0.0002	39.653	100.562	1830.1
143.5	1493.3	5.787	0.0002	39.517	100.570	1827.7
144.0	1490.3	5.775	0.0002	39.380	100.578	1825.2
144.5	1487.3	5.763	0.0002	39.246	100.584	1822.7
145.0	1484.3	5.752	0.0002	39.113	100.591	1820.3
145.5	1481.3	5.740	0.0001	38.979	100.598	1817.8
146.0	1478.3	5.728	0.0001	38.844	100.607	1815.4
146.5	1475.3	5.717	0.0001	38.709	100.615	1812.9
147.0	1472.3	5.705	0.0001	38.572	100.623	1810.5
147.5	1469.4	5.694	0.0001	38.436	100.630	1808.1
148.0	1466.4	5.682	0.0001	38.298	100.635	1805.7
148.5	1463.5	5.671	0.0001	38.158	100.639	1803.3
149.0	1460.5	5.660	0.0001	38.018	100.644	1800.9
149.5	1457.6	5.648	0.0001	37.879	100.650	1798.5
150.0	1454.7	5.637	0.0001	37.739	100.657	1796.1
150.5	1451.8	5.626	0.0001	37.599	100.663	1793.8
151.0	1448.9	5.614	0.0000	37.458	100.669	1791.4
151.5	1446.0	5.603	0.0000	37.317	100.674	1789.1
152.0	1443.1	5.592	0.0000	37.176	100.680	1786.7
152.5	1440.2	5.581	0.0000	37.033	100.686	1784.4
153.0	1437.3	5.570	0.0000	36.890	100.692	1782.1
153.5	1434.5	5.559	0.0000	36.747	100.698	1779.8
154.0	1431.6	5.548	0.0000	36.603	100.704	1777.5
154.5	1428.8	5.538	0.0000	36.459	100.709	1775.2
155.0	1426.0	5.527	0.0000	36.313	100.715	1772.9
155.5	1423.2	5.516	0.0000	36.168	100.721	1770.7
156.0	1420.4	5.505	0.0000	36.022	100.727	1768.4
156.5	1417.6	5.494	0.0000	35.875	100.732	1766.1
157.0	1414.8	5.483	0.0000	35.727	100.738	1763.9

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
157.5	1412.0	5.473	0.0000	35.579	100.744	1761.7
158.0	1409.3	5.462	0.0000	35.431	100.750	1759.5
158.5	1406.5	5.451	0.0000	35.282	100.756	1757.2
159.0	1403.8	5.441	0.0000	35.132	100.761	1755.0
159.5	1401.0	5.430	0.0000	34.982	100.767	1752.9
160.0	1398.3	5.420	0.0000	34.831	100.773	1750.7
160.5	1395.6	5.409	0.0000	34.679	100.779	1748.5
161.0	1392.9	5.399	0.0000	34.527	100.784	1746.3
161.5	1390.2	5.388	0.0000	34.375	100.790	1744.2
162.0	1387.5	5.378	0.0000	34.221	100.796	1742.0
162.5	1384.9	5.367	0.0000	34.068	100.802	1739.9
163.0	1382.2	5.357	0.0000	33.913	100.807	1737.8
163.5	1379.6	5.347	0.0000	33.758	100.813	1735.7
164.0	1376.9	5.337	0.0000	33.603	100.819	1733.6
164.5	1374.3	5.327	0.0000	33.446	100.825	1731.5
165.0	1371.7	5.316	0.0000	33.290	100.830	1729.4
165.5	1369.1	5.306	0.0000	33.132	100.836	1727.4
166.0	1366.5	5.296	0.0000	32.974	100.842	1725.3
166.5	1363.9	5.286	0.0000	32.816	100.848	1723.2
167.0	1361.4	5.276	0.0000	32.656	100.853	1721.2
167.5	1358.8	5.266	0.0000	32.497	100.859	1719.2
168.0	1356.3	5.257	0.0000	32.336	100.865	1717.2
168.5	1353.8	5.247	0.0000	32.175	100.871	1715.2
169.0	1351.2	5.237	0.0000	32.014	100.876	1713.2
169.5	1348.7	5.227	0.0000	31.852	100.882	1711.2
170.0	1346.2	5.218	0.0000	31.689	100.888	1709.2
170.5	1343.7	5.208	0.0000	31.526	100.893	1707.2
171.0	1341.3	5.198	0.0000	31.362	100.899	1705.3
171.5	1338.8	5.189	0.0000	31.197	100.905	1703.4
172.0	1336.4	5.179	0.0000	31.032	100.910	1701.4
172.5	1333.9	5.170	0.0000	30.866	100.916	1699.5
173.0	1331.5	5.161	0.0000	30.700	100.922	1697.6
173.5	1329.1	5.151	0.0000	30.533	100.927	1695.7
174.0	1326.7	5.142	0.0000	30.365	100.933	1693.8
174.5	1324.3	5.133	0.0000	30.197	100.939	1691.9
175.0	1321.9	5.123	0.0000	30.028	100.945	1690.1
175.5	1319.5	5.114	0.0000	29.859	100.950	1688.2
176.0	1317.2	5.105	0.0000	29.689	100.956	1686.4
176.5	1314.9	5.096	0.0000	29.518	100.962	1684.5
177.0	1312.5	5.087	0.0000	29.347	100.967	1682.7

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
177.5	1310.2	5.078	0.0000	29.175	100.973	1680.9
178.0	1307.9	5.069	0.0000	29.003	100.978	1679.1
178.5	1305.6	5.060	0.0000	28.830	100.984	1677.3
179.0	1303.4	5.051	0.0000	28.656	100.990	1675.5
179.5	1301.1	5.043	0.0000	28.482	100.995	1673.8
180.0	1298.8	5.034	0.0000	28.307	101.001	1672.0
180.5	1296.6	5.025	0.0000	28.132	101.007	1670.3
181.0	1294.4	5.017	0.0000	27.955	101.012	1668.5
181.5	1292.2	5.008	0.0000	27.779	101.018	1666.8
182.0	1290.0	5.000	0.0000	27.602	101.024	1665.1
182.5	1287.8	4.991	0.0000	27.424	101.029	1663.4
183.0	1285.6	4.983	0.0000	27.245	101.035	1661.7
183.5	1283.4	4.974	0.0000	27.066	101.040	1660.1
184.0	1281.3	4.966	0.0000	26.887	101.046	1658.4
184.5	1279.2	4.958	0.0000	26.706	101.052	1656.7
185.0	1277.1	4.950	0.0000	26.526	101.057	1655.1
185.5	1275.0	4.941	0.0000	26.344	101.063	1653.5
186.0	1272.9	4.933	0.0000	26.162	101.069	1651.8
186.5	1270.8	4.925	0.0000	25.979	101.074	1650.2
187.0	1268.7	4.917	0.0000	25.796	101.080	1648.6
187.5	1266.7	4.909	0.0000	25.612	101.085	1647.1
188.0	1264.6	4.901	0.0000	25.428	101.091	1645.5
188.5	1262.6	4.894	0.0000	25.243	101.096	1643.9
189.0	1260.6	4.886	0.0000	25.057	101.102	1642.4
189.5	1258.6	4.878	0.0000	24.871	101.108	1640.9
190.0	1256.6	4.870	0.0000	24.684	101.113	1639.3
190.5	1254.7	4.863	0.0000	24.497	101.119	1637.8
191.0	1252.7	4.855	0.0000	24.309	101.124	1636.3
191.5	1250.8	4.848	0.0000	24.121	101.130	1634.8
192.0	1248.9	4.840	0.0000	23.931	101.136	1633.4
192.5	1246.9	4.833	0.0000	23.742	101.141	1631.9
193.0	1245.1	4.826	0.0000	23.552	101.147	1630.4
193.5	1243.2	4.818	0.0000	23.361	101.152	1629.0
194.0	1241.3	4.811	0.0000	23.169	101.158	1627.6
194.5	1239.5	4.804	0.0000	22.977	101.163	1626.2
195.0	1237.6	4.797	0.0000	22.785	101.169	1624.8
195.5	1235.8	4.790	0.0000	22.592	101.174	1623.4
196.0	1234.0	4.783	0.0000	22.398	101.180	1622.0
196.5	1232.2	4.776	0.0000	22.204	101.185	1620.6
197.0	1230.4	4.769	0.0000	22.009	101.191	1619.3

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
197.5	1228.7	4.762	0.0000	21.814	101.197	1617.9
198.0	1226.9	4.755	0.0000	21.618	101.202	1616.6
198.5	1225.2	4.749	0.0000	21.421	101.208	1615.3
199.0	1223.5	4.742	0.0000	21.224	101.213	1614.0
199.5	1221.8	4.735	0.0000	21.027	101.219	1612.7
200.0	1220.1	4.729	0.0000	20.828	101.224	1611.4
200.5	1218.4	4.722	0.0000	20.630	101.230	1610.1
201.0	1216.8	4.716	0.0000	20.430	101.235	1608.9
201.5	1215.1	4.710	0.0000	20.231	101.241	1607.6
202.0	1213.5	4.703	0.0000	20.030	101.246	1606.4
202.5	1211.9	4.697	0.0000	19.830	101.252	1605.2
203.0	1210.3	4.691	0.0000	19.628	101.257	1604.0
203.5	1208.7	4.685	0.0000	19.426	101.263	1602.8
204.0	1207.2	4.679	0.0000	19.224	101.268	1601.6
204.5	1205.6	4.673	0.0000	19.021	101.274	1600.4
205.0	1204.1	4.667	0.0000	18.818	101.279	1599.3
205.5	1202.6	4.661	0.0000	18.614	101.285	1598.1
206.0	1201.1	4.655	0.0000	18.409	101.290	1597.0
206.5	1199.6	4.649	0.0000	18.204	101.296	1595.9
207.0	1198.1	4.644	0.0000	17.999	101.301	1594.8
207.5	1196.7	4.638	0.0000	17.793	101.306	1593.7
208.0	1195.3	4.633	0.0000	17.586	101.312	1592.6
208.5	1193.9	4.627	0.0000	17.379	101.317	1591.5
209.0	1192.5	4.622	0.0000	17.172	101.323	1590.5
209.5	1191.1	4.616	0.0000	16.964	101.328	1589.5
210.0	1189.7	4.611	0.0000	16.756	101.334	1588.4
210.5	1188.4	4.606	0.0000	16.547	101.339	1587.4
211.0	1187.0	4.601	0.0000	16.338	101.345	1586.4
211.5	1185.7	4.595	0.0000	16.128	101.350	1585.4
212.0	1184.4	4.590	0.0000	15.917	101.356	1584.4
212.5	1183.1	4.585	0.0000	15.707	101.361	1583.5
213.0	1181.9	4.581	0.0000	15.496	101.366	1582.5
213.5	1180.6	4.576	0.0000	15.284	101.372	1581.6
214.0	1179.4	4.571	0.0000	15.072	101.377	1580.7
214.5	1178.2	4.566	0.0000	14.859	101.383	1579.8
215.0	1177.0	4.562	0.0000	14.646	101.388	1578.9
215.5	1175.8	4.557	0.0000	14.433	101.393	1578.0
216.0	1174.6	4.552	0.0000	14.219	101.399	1577.1
216.5	1173.5	4.548	0.0000	14.005	101.404	1576.2
217.0	1172.3	4.544	0.0000	13.790	101.410	1575.4

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
217.5	1171.2	4.539	0.0000	13.575	101.415	1574.6
218.0	1170.1	4.535	0.0000	13.360	101.421	1573.8
218.5	1169.0	4.531	0.0000	13.144	101.426	1572.9
219.0	1168.0	4.527	0.0000	12.928	101.431	1572.2
219.5	1166.9	4.523	0.0000	12.711	101.437	1571.4
220.0	1165.9	4.519	0.0000	12.494	101.442	1570.6
220.5	1164.9	4.515	0.0000	12.277	101.447	1569.9
221.0	1163.9	4.511	0.0000	12.059	101.453	1569.1
221.5	1162.9	4.507	0.0000	11.841	101.458	1568.4
222.0	1162.0	4.504	0.0000	11.622	101.464	1567.7
222.5	1161.0	4.500	0.0000	11.403	101.469	1567.0
223.0	1160.1	4.496	0.0000	11.184	101.474	1566.3
223.5	1159.2	4.493	0.0000	10.965	101.480	1565.6
224.0	1158.3	4.489	0.0000	10.745	101.485	1565.0
224.5	1157.5	4.486	0.0000	10.524	101.490	1564.3
225.0	1156.6	4.483	0.0000	10.304	101.496	1563.7
225.5	1155.8	4.479	0.0000	10.083	101.501	1563.1
226.0	1155.0	4.476	0.0000	9.862	101.506	1562.5
226.5	1154.2	4.473	0.0000	9.640	101.512	1561.9
227.0	1153.4	4.470	0.0000	9.419	101.517	1561.3
227.5	1152.6	4.467	0.0000	9.196	101.522	1560.7
228.0	1151.9	4.464	0.0000	8.974	101.528	1560.2
228.5	1151.2	4.462	0.0000	8.751	101.533	1559.6
229.0	1150.5	4.459	0.0000	8.528	101.538	1559.1
229.5	1149.8	4.456	0.0000	8.305	101.544	1558.6
230.0	1149.1	4.454	0.0000	8.082	101.549	1558.1
230.5	1148.4	4.451	0.0000	7.858	101.554	1557.6
231.0	1147.8	4.449	0.0000	7.634	101.560	1557.2
231.5	1147.2	4.446	0.0000	7.410	101.565	1556.7
232.0	1146.6	4.444	0.0000	7.185	101.570	1556.3
232.5	1146.0	4.442	0.0000	6.961	101.576	1555.8
233.0	1145.5	4.439	0.0000	6.736	101.581	1555.4
233.5	1144.9	4.437	0.0000	6.511	101.586	1555.0
234.0	1144.4	4.435	0.0000	6.285	101.592	1554.6
234.5	1143.9	4.433	0.0000	6.060	101.597	1554.3
235.0	1143.4	4.432	0.0000	5.834	101.602	1553.9
235.5	1142.9	4.430	0.0000	5.608	101.607	1553.5
236.0	1142.5	4.428	0.0000	5.382	101.613	1553.2
236.5	1142.0	4.426	0.0000	5.156	101.618	1552.9
237.0	1141.6	4.425	0.0000	4.929	101.623	1552.6

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
237.5	1141.2	4.423	0.0000	4.703	101.629	1552.3
238.0	1140.9	4.422	0.0000	4.476	101.634	1552.0
238.5	1140.5	4.420	0.0000	4.249	101.639	1551.8
239.0	1140.2	4.419	0.0000	4.022	101.644	1551.5
239.5	1139.8	4.418	0.0000	3.795	101.650	1551.3
240.0	1139.5	4.417	0.0000	3.568	101.655	1551.0
240.5	1139.3	4.415	0.0000	3.340	101.660	1550.8
241.0	1139.0	4.414	0.0000	3.113	101.665	1550.6
241.5	1138.7	4.414	0.0000	2.885	101.671	1550.5
242.0	1138.5	4.413	0.0000	2.657	101.676	1550.3
242.5	1138.3	4.412	0.0000	2.429	101.681	1550.1
243.0	1138.1	4.411	0.0000	2.202	101.686	1550.0
243.5	1138.0	4.410	0.0000	1.974	101.692	1549.9
244.0	1137.8	4.410	0.0000	1.746	101.697	1549.7
244.5	1137.7	4.409	0.0000	1.518	101.702	1549.6
245.0	1137.6	4.409	0.0000	1.289	101.707	1549.6
245.5	1137.5	4.408	0.0000	1.061	101.712	1549.5
246.0	1137.4	4.408	0.0000	0.833	101.718	1549.4
246.5	1137.3	4.408	0.0000	0.605	101.723	1549.4
247.0	1137.3	4.408	0.0000	0.377	101.728	1549.4
247.5	1137.3	4.408	0.0000	0.148	101.733	1549.3
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247.799	1137.3	4.408	0.0000	0.011	101.736	1549.3
248.0	1137.3	4.408	0.0000	-0.080	101.738	1549.3
248.5	1137.3	4.408	0.0000	-0.308	101.744	1549.3
249.0	1137.3	4.408	0.0000	-0.536	101.749	1549.4
249.5	1137.4	4.408	0.0000	-0.765	101.754	1549.4
250.0	1137.4	4.408	0.0000	-0.993	101.759	1549.5
250.5	1137.5	4.409	0.0000	-1.221	101.764	1549.5
251.0	1137.6	4.409	0.0000	-1.449	101.770	1549.6
251.5	1137.8	4.410	0.0000	-1.677	101.775	1549.7
252.0	1137.9	4.410	0.0000	-1.905	101.780	1549.8
252.5	1138.1	4.411	0.0000	-2.133	101.785	1549.9
253.0	1138.3	4.412	0.0000	-2.361	101.790	1550.1
253.5	1138.5	4.412	0.0000	-2.589	101.795	1550.2
254.0	1138.7	4.413	0.0000	-2.817	101.801	1550.4
254.5	1138.9	4.414	0.0000	-3.044	101.806	1550.6
255.0	1139.2	4.415	0.0000	-3.272	101.811	1550.7
255.5	1139.5	4.416	0.0000	-3.499	101.816	1550.9

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
256.0	1139.8	4.417	0.0000	-3.727	101.821	1551.2
256.5	1140.1	4.419	0.0000	-3.954	101.826	1551.4
257.0	1140.4	4.420	0.0000	-4.181	101.832	1551.6
257.5	1140.8	4.421	0.0000	-4.408	101.837	1551.9
258.0	1141.1	4.423	0.0000	-4.635	101.842	1552.2
258.5	1141.5	4.424	0.0000	-4.861	101.847	1552.5
259.0	1141.9	4.426	0.0000	-5.088	101.852	1552.8
259.5	1142.4	4.427	0.0000	-5.314	101.857	1553.1
260.0	1142.8	4.429	0.0000	-5.540	101.862	1553.4
260.5	1143.3	4.431	0.0000	-5.766	101.867	1553.7
261.0	1143.7	4.433	0.0000	-5.992	101.873	1554.1
261.5	1144.2	4.435	0.0000	-6.218	101.878	1554.5
262.0	1144.8	4.437	0.0000	-6.443	101.883	1554.8
262.5	1145.3	4.439	0.0000	-6.668	101.888	1555.2
263.0	1145.9	4.441	0.0000	-6.893	101.893	1555.6
263.5	1146.4	4.443	0.0000	-7.118	101.898	1556.1
264.0	1147.0	4.446	0.0000	-7.343	101.903	1556.5
264.5	1147.6	4.448	0.0000	-7.567	101.908	1557.0
265.0	1148.3	4.450	0.0000	-7.791	101.913	1557.4
265.5	1148.9	4.453	0.0000	-8.015	101.919	1557.9
266.0	1149.6	4.455	0.0000	-8.238	101.924	1558.4
266.5	1150.3	4.458	0.0000	-8.462	101.929	1558.9
267.0	1151.0	4.461	0.0000	-8.685	101.934	1559.4
267.5	1151.7	4.464	0.0000	-8.907	101.939	1559.9
268.0	1152.4	4.466	0.0000	-9.130	101.944	1560.5
268.5	1153.2	4.469	0.0000	-9.352	101.949	1561.0
269.0	1153.9	4.472	0.0000	-9.574	101.954	1561.6
269.5	1154.7	4.475	0.0000	-9.795	101.959	1562.2
270.0	1155.5	4.479	0.0000	-10.017	101.964	1562.8
270.5	1156.4	4.482	0.0000	-10.238	101.969	1563.4
271.0	1157.2	4.485	0.0000	-10.458	101.974	1564.0
271.5	1158.1	4.488	0.0000	-10.679	101.979	1564.7
272.0	1159.0	4.492	0.0000	-10.899	101.984	1565.3
272.5	1159.9	4.495	0.0000	-11.118	101.989	1566.0
273.0	1160.8	4.499	0.0000	-11.338	101.994	1566.7
273.5	1161.7	4.503	0.0000	-11.556	101.999	1567.4
274.0	1162.7	4.506	0.0000	-11.775	102.005	1568.1
274.5	1163.6	4.510	0.0000	-11.993	102.010	1568.8
275.0	1164.6	4.514	0.0000	-12.211	102.015	1569.5
275.5	1165.6	4.518	0.0000	-12.429	102.020	1570.3

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRÉS KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
276.0	1166.7	4.522	0.0000	-12.646	102.025	1571.0
276.5	1167.7	4.526	0.0000	-12.863	102.030	1571.8
277.0	1168.7	4.530	0.0000	-13.079	102.035	1572.6
277.5	1169.8	4.534	0.0000	-13.295	102.040	1573.4
278.0	1170.9	4.538	0.0000	-13.510	102.045	1574.2
278.5	1172.0	4.542	0.0000	-13.726	102.050	1575.0
279.0	1173.1	4.547	0.0000	-13.940	102.055	1575.9
279.5	1174.3	4.551	0.0000	-14.155	102.060	1576.7
280.0	1175.5	4.556	0.0000	-14.369	102.065	1577.6
280.5	1176.6	4.560	0.0000	-14.582	102.070	1578.5
281.0	1177.8	4.565	0.0000	-14.795	102.075	1579.4
281.5	1179.0	4.570	0.0000	-15.008	102.080	1580.3
282.0	1180.3	4.574	0.0000	-15.220	102.085	1581.2
282.5	1181.5	4.579	0.0000	-15.432	102.090	1582.1
283.0	1182.8	4.584	0.0000	-15.643	102.095	1583.1
283.5	1184.0	4.589	0.0000	-15.854	102.100	1584.0
284.0	1185.3	4.594	0.0000	-16.064	102.105	1585.0
284.5	1186.7	4.599	0.0000	-16.274	102.109	1586.0
285.0	1188.0	4.604	0.0000	-16.484	102.114	1587.0
285.5	1189.3	4.610	0.0000	-16.693	102.119	1588.0
286.0	1190.7	4.615	0.0000	-16.901	102.124	1589.0
286.5	1192.1	4.620	0.0000	-17.109	102.129	1590.0
287.0	1193.5	4.626	0.0000	-17.317	102.134	1591.1
287.5	1194.9	4.631	0.0000	-17.524	102.139	1592.1
288.0	1196.3	4.637	0.0000	-17.731	102.144	1593.2
288.5	1197.7	4.642	0.0000	-17.937	102.149	1594.3
289.0	1199.2	4.648	0.0000	-18.142	102.154	1595.4
289.5	1200.7	4.654	0.0000	-18.347	102.159	1596.5
290.0	1202.2	4.659	0.0000	-18.552	102.164	1597.6
290.5	1203.7	4.665	0.0000	-18.756	102.169	1598.8
291.0	1205.2	4.671	0.0000	-18.960	102.174	1599.9
291.5	1206.7	4.677	0.0000	-19.163	102.179	1601.1
292.0	1208.3	4.683	0.0000	-19.365	102.184	1602.3
292.5	1209.9	4.689	0.0000	-19.567	102.188	1603.5
293.0	1211.5	4.695	0.0000	-19.769	102.193	1604.7
293.5	1213.1	4.702	0.0000	-19.970	102.198	1605.9
294.0	1214.7	4.708	0.0000	-20.170	102.203	1607.1
294.5	1216.3	4.714	0.0000	-20.370	102.208	1608.3
295.0	1218.0	4.721	0.0000	-20.569	102.213	1609.6
295.5	1219.6	4.727	0.0000	-20.768	102.218	1610.8

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
296.0	1221.3	4.733	0.0000	-20.967	102.223	1612.1
296.5	1223.0	4.740	0.0000	-21.164	102.228	1613.4
297.0	1224.7	4.747	0.0000	-21.361	102.233	1614.7
297.5	1226.4	4.753	0.0000	-21.558	102.237	1616.0
298.0	1228.2	4.760	0.0000	-21.754	102.242	1617.3
298.5	1229.9	4.767	0.0000	-21.950	102.247	1618.7
299.0	1231.7	4.774	0.0000	-22.145	102.252	1620.0
299.5	1233.5	4.781	0.0000	-22.339	102.257	1621.4
300.0	1235.3	4.788	0.0000	-22.533	102.262	1622.8
300.5	1237.1	4.795	0.0000	-22.726	102.267	1624.2
301.0	1238.9	4.802	0.0000	-22.919	102.271	1625.5
301.5	1240.8	4.809	0.0000	-23.111	102.276	1627.0
302.0	1242.7	4.816	0.0000	-23.303	102.281	1628.4
302.5	1244.5	4.823	0.0000	-23.494	102.286	1629.8
303.0	1246.4	4.831	0.0000	-23.684	102.291	1631.3
303.5	1248.3	4.838	0.0000	-23.874	102.296	1632.7
304.0	1250.2	4.846	0.0000	-24.063	102.301	1634.2
304.5	1252.2	4.853	0.0000	-24.252	102.305	1635.7
305.0	1254.1	4.861	0.0000	-24.440	102.310	1637.2
305.5	1256.1	4.868	0.0000	-24.627	102.315	1638.7
306.0	1258.1	4.876	0.0000	-24.814	102.320	1640.2
306.5	1260.0	4.884	0.0000	-25.001	102.325	1641.7
307.0	1262.1	4.891	0.0000	-25.186	102.329	1643.3
307.5	1264.1	4.899	0.0000	-25.372	102.334	1644.8
308.0	1266.1	4.907	0.0000	-25.556	102.339	1646.4
308.5	1268.1	4.915	0.0000	-25.740	102.344	1648.0
309.0	1270.2	4.923	0.0000	-25.924	102.349	1649.6
309.5	1272.3	4.931	0.0000	-26.106	102.354	1651.2
310.0	1274.4	4.939	0.0000	-26.289	102.358	1652.8
310.5	1276.5	4.947	0.0000	-26.470	102.363	1654.4
311.0	1278.6	4.955	0.0000	-26.651	102.368	1656.0
311.5	1280.7	4.964	0.0000	-26.832	102.373	1657.7
312.0	1282.9	4.972	0.0000	-27.011	102.377	1659.3
312.5	1285.0	4.980	0.0000	-27.191	102.382	1661.0
313.0	1287.2	4.989	0.0000	-27.369	102.387	1662.7
313.5	1289.4	4.997	0.0000	-27.547	102.392	1664.4
314.0	1291.6	5.006	0.0000	-27.725	102.397	1666.1
314.5	1293.8	5.014	0.0000	-27.901	102.401	1667.8
315.0	1296.0	5.023	0.0000	-28.078	102.406	1669.5
315.5	1298.2	5.032	0.0000	-28.253	102.411	1671.3

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TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
316.0	1300.5	5.040	0.0000	-28.428	102.416	1673.0
316.5	1302.7	5.049	0.0000	-28.603	102.420	1674.8
317.0	1305.0	5.058	0.0000	-28.777	102.425	1676.5
317.5	1307.3	5.067	0.0000	-28.950	102.430	1678.3
318.0	1309.6	5.076	0.0000	-29.122	102.435	1680.1
318.5	1311.9	5.085	0.0000	-29.294	102.439	1681.9
319.0	1314.2	5.094	0.0000	-29.466	102.444	1683.7
319.5	1316.5	5.103	0.0000	-29.636	102.449	1685.6
320.0	1318.9	5.112	0.0000	-29.807	102.454	1687.4
320.5	1321.3	5.121	0.0000	-29.976	102.458	1689.3
321.0	1323.6	5.130	0.0000	-30.145	102.463	1691.1
321.5	1326.0	5.139	0.0000	-30.313	102.468	1693.0
322.0	1328.4	5.149	0.0000	-30.481	102.472	1694.9
322.5	1330.8	5.158	0.0000	-30.648	102.477	1696.8
323.0	1333.2	5.167	0.0000	-30.815	102.482	1698.7
323.5	1335.7	5.177	0.0000	-30.981	102.487	1700.6
324.0	1338.1	5.186	0.0000	-31.146	102.491	1702.5
324.5	1340.6	5.196	0.0000	-31.311	102.496	1704.5
325.0	1343.1	5.205	0.0000	-31.475	102.501	1706.4
325.5	1345.5	5.215	0.0000	-31.639	102.505	1708.4
326.0	1348.0	5.225	0.0000	-31.802	102.510	1710.3
326.5	1350.5	5.234	0.0000	-31.964	102.515	1712.3
327.0	1353.0	5.244	0.0000	-32.126	102.520	1714.3
327.5	1355.6	5.254	0.0000	-32.287	102.524	1716.3
328.0	1358.1	5.264	0.0000	-32.447	102.529	1718.3
328.5	1360.7	5.274	0.0000	-32.607	102.534	1720.3
329.0	1363.2	5.284	0.0000	-32.767	102.538	1722.4
329.5	1365.8	5.294	0.0000	-32.925	102.543	1724.4
330.0	1368.4	5.304	0.0000	-33.083	102.548	1726.5
330.5	1371.0	5.314	0.0000	-33.241	102.552	1728.5
331.0	1373.6	5.324	0.0000	-33.398	102.557	1730.6
331.5	1376.2	5.334	0.0000	-33.554	102.562	1732.7
332.0	1378.8	5.344	0.0000	-33.710	102.566	1734.8
332.5	1381.5	5.354	0.0000	-33.865	102.571	1736.9
333.0	1384.1	5.365	0.0000	-34.020	102.576	1739.0
333.5	1386.8	5.375	0.0000	-34.174	102.580	1741.1
334.0	1389.5	5.385	0.0000	-34.327	102.585	1743.3
334.5	1392.2	5.396	0.0000	-34.480	102.589	1745.4
335.0	1394.9	5.406	0.0000	-34.632	102.594	1747.6
335.5	1397.6	5.417	0.0000	-34.784	102.599	1749.7

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
336.0	1400.3	5.427	0.0000	-34.935	102.603	1751.9
336.5	1403.0	5.438	0.0000	-35.085	102.608	1754.1
337.0	1405.7	5.448	0.0000	-35.235	102.613	1756.3
337.5	1408.5	5.459	0.0000	-35.385	102.617	1758.5
338.0	1411.3	5.470	0.0000	-35.533	102.622	1760.7
338.5	1414.0	5.480	0.0000	-35.681	102.626	1762.9
339.0	1416.8	5.491	0.0000	-35.829	102.631	1765.2
339.5	1419.6	5.502	0.0000	-35.976	102.636	1767.4
340.0	1422.4	5.513	0.0000	-36.122	102.640	1769.7
340.5	1425.2	5.524	0.0000	-36.268	102.645	1771.9
341.0	1428.0	5.535	0.0000	-36.413	102.649	1774.2
341.5	1430.9	5.545	0.0000	-36.558	102.654	1776.5
342.0	1433.7	5.556	0.0000	-36.702	102.659	1778.8
342.5	1436.5	5.567	0.0000	-36.846	102.663	1781.1
343.0	1439.4	5.578	0.0000	-36.989	102.668	1783.4
343.5	1442.3	5.589	0.0000	-37.131	102.672	1785.7
344.0	1445.2	5.600	0.0000	-37.273	102.677	1788.1
344.5	1448.0	5.611	0.0000	-37.414	102.682	1790.4
345.0	1450.9	5.622	0.0001	-37.555	102.686	1792.8
345.5	1453.9	5.634	0.0001	-37.695	102.691	1795.1
346.0	1456.8	5.645	0.0001	-37.835	102.695	1797.5
346.5	1459.7	5.656	0.0001	-37.974	102.700	1799.9
347.0	1462.6	5.668	0.0001	-38.112	102.704	1802.3
347.5	1465.6	5.679	0.0001	-38.250	102.709	1804.6
348.0	1468.5	5.691	0.0001	-38.388	102.713	1807.1
348.5	1471.5	5.702	0.0001	-38.525	102.718	1809.5
349.0	1474.5	5.714	0.0001	-38.661	102.723	1811.9
349.5	1477.5	5.725	0.0001	-38.797	102.727	1814.3
350.0	1480.5	5.737	0.0001	-38.932	102.732	1816.8
350.5	1483.5	5.748	0.0002	-39.067	102.736	1819.2
351.0	1486.5	5.760	0.0002	-39.201	102.741	1821.7
351.5	1489.5	5.772	0.0002	-39.334	102.745	1824.2
352.0	1492.5	5.784	0.0002	-39.467	102.750	1826.6
352.5	1495.6	5.795	0.0002	-39.600	102.754	1829.1
353.0	1498.6	5.807	0.0003	-39.732	102.759	1831.6
353.5	1501.7	5.813	0.0003	-39.863	102.763	1834.1
354.0	1504.7	5.787	0.0003	-39.994	102.768	1836.7
354.5	1507.8	5.762	0.0003	-40.124	102.772	1839.2
355.0	1510.9	5.737	0.0004	-40.254	102.777	1841.7
355.5	1514.0	5.712	0.0004	-40.384	102.781	1844.3

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH.	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
356.0	1517.1	5.688	0.0004	-40.512	102.786	1846.8
356.5	1520.2	5.664	0.0005	-40.641	102.790	1849.4
357.0	1523.3	5.641	0.0005	-40.768	102.795	1851.9
357.5	1526.4	5.618	0.0006	-40.896	102.799	1854.5
358.0	1529.6	5.595	0.0006	-41.022	102.804	1857.1
358.5	1532.7	5.573	0.0007	-41.148	102.808	1859.7
359.0	1535.8	5.551	0.0007	-41.274	102.813	1862.3
359.5	1539.0	5.529	0.0008	-41.399	102.817	1864.9
360.0	1542.2	5.508	0.0008	-41.524	102.822	1867.5
360.5	1545.3	5.487	0.0009	-41.648	102.826	1870.1
361.0	1548.5	5.466	0.0010	-41.772	102.831	1872.8
361.5	1551.7	5.445	0.0011	-41.895	102.835	1875.4
362.0	1554.9	5.425	0.0012	-42.017	102.840	1878.1
362.5	1558.1	5.406	0.0013	-42.139	102.844	1880.7
363.0	1561.3	5.386	0.0014	-42.261	102.849	1883.4
363.5	1564.5	5.367	0.0015	-42.382	102.853	1886.1
364.0	1567.8	5.348	0.0016	-42.503	102.857	1888.8
364.5	1571.0	5.329	0.0017	-42.623	102.862	1891.5
365.0	1574.2	5.311	0.0019	-42.743	102.866	1894.2
365.5	1577.5	5.293	0.0020	-42.862	102.871	1896.9
366.0	1580.8	5.275	0.0022	-42.980	102.875	1899.6
366.5	1584.0	5.257	0.0023	-43.098	102.880	1902.3
367.0	1587.3	5.240	0.0025	-43.216	102.884	1905.0
367.5	1590.6	5.223	0.0027	-43.333	102.888	1907.8
368.0	1593.8	5.206	0.0029	-43.450	102.893	1910.5
368.5	1597.1	5.189	0.0032	-43.566	102.897	1913.3
369.0	1600.4	5.173	0.0034	-43.682	102.902	1916.0
369.5	1603.7	5.157	0.0037	-43.797	102.906	1918.8
370.0	1607.1	5.140	0.0039	-43.912	102.911	1921.6
370.5	1610.4	5.125	0.0042	-44.026	102.915	1924.3
371.0	1613.7	5.109	0.0045	-44.140	102.919	1927.1
371.5	1617.0	5.094	0.0049	-44.254	102.924	1929.9
372.0	1620.4	5.078	0.0052	-44.367	102.928	1932.7
372.5	1623.7	5.063	0.0056	-44.479	102.933	1935.5
373.0	1627.0	5.049	0.0060	-44.591	102.937	1938.3
373.5	1630.4	5.034	0.0064	-44.703	102.941	1941.1
374.0	1633.8	5.020	0.0069	-44.814	102.946	1944.0
374.5	1637.1	5.005	0.0074	-44.924	102.950	1946.8
375.0	1640.5	4.991	0.0079	-45.035	102.955	1949.6
375.5	1643.9	4.977	0.0085	-45.144	102.959	1952.5

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
376.0	1647.2	4.964	0.0091	-45.254	102.963	1955.3
376.5	1650.6	4.950	0.0097	-45.362	102.968	1958.2
377.0	1654.0	4.937	0.0104	-45.471	102.972	1961.0
377.5	1657.4	4.923	0.0111	-45.579	102.976	1963.9
378.0	1660.8	4.927	0.0118	-45.686	102.981	1966.8
378.5	1664.2	4.937	0.0127	-45.793	102.985	1969.6
379.0	1667.6	4.947	0.0138	-45.900	102.989	1972.5
379.5	1671.0	4.957	0.0148	-46.006	102.994	1975.4
380.0	1674.4	4.967	0.0160	-46.112	102.998	1978.3
380.5	1677.8	4.977	0.0173	-46.217	103.002	1981.1
381.0	1681.2	4.987	0.0187	-46.322	103.007	1984.0
381.5	1684.6	4.998	0.0202	-46.427	103.011	1986.9
382.0	1688.0	5.008	0.0219	-46.531	103.016	1989.8
382.5	1691.4	5.018	0.0236	-46.634	103.020	1992.7
383.0	1694.8	5.088	0.0271	-46.738	103.024	1995.6
383.5	1698.2	5.112	0.0294	-46.840	103.028	1998.4
384.0	1701.6	5.136	0.0317	-46.943	103.033	2001.3
384.5	1705.0	5.161	0.0342	-47.045	103.037	2004.2
385.0	1708.4	5.185	0.0367	-47.146	103.041	2007.1
385.5	1711.8	5.210	0.0397	-47.247	103.046	2009.9
386.0	1715.2	5.236	0.0438	-47.348	103.050	2012.8
386.5	1718.5	5.262	0.0481	-47.448	103.054	2015.6
387.0	1721.9	5.289	0.0526	-47.548	103.059	2018.5
387.5	1725.2	5.315	0.0572	-47.648	103.063	2021.3
388.0	1728.5	5.342	0.0623	-47.747	103.067	2024.1
388.5	1731.8	5.369	0.0689	-47.846	103.072	2026.9
389.0	1735.1	5.397	0.0757	-47.944	103.076	2029.6
389.5	1738.4	5.425	0.0827	-48.042	103.080	2032.4
390.0	1741.6	5.453	0.0913	-48.140	103.084	2035.1
390.5	1744.8	5.482	0.1006	-48.237	103.089	2037.8
391.0	1747.9	5.511	0.1108	-48.334	103.093	2040.4
391.5	1751.0	5.540	0.1233	-48.430	103.097	2043.0
392.0	1754.1	5.570	0.1364	-48.526	103.102	2045.6
392.5	1757.1	5.600	0.1500	-48.622	103.106	2048.1
393.0	1760.0	5.630	0.1662	-48.718	103.110	2050.5
393.5	1762.9	5.661	0.1856	-48.813	103.114	2052.9
394.0	1765.7	5.692	0.2058	-48.907	103.119	2055.2
394.5	1768.4	5.723	0.2269	-49.002	103.123	2057.4
395.0	1771.0	5.741	0.2500	-49.096	103.127	2059.5
395.5	1773.5	5.736	0.2749	-49.190	103.131	2061.5

TABLE VIII

TIME SEC	EARTH-VEL M/SEC	MACH	DYNPRES KG/CM SQ	VEL-ELEV DEG	VEL-AZ DEG	SPACE-VEL M/SEC
396.0	1775.9	5.767	0.3060	-49.283	103.135	2063.4
396.5	1778.1	5.769	0.3375	-49.376	103.140	2065.1
397.0	1780.1	5.836	0.3809	-49.469	103.144	2066.7
397.5	1782.0	5.887	0.4282	-49.562	103.148	2068.1
LOSS OF TELEMETRY						
397.796	1783.1	5.884	0.4544	-49.617	103.151	2068.9

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SATURN SA-4 POSTFLIGHT TRAJECTORY (U)

By John P. Sheats

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